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DISPATCH OF "THE RAILWAY GAZETTE" OVERSEAS

We would remind our readers that there are many overseas countries to which it is not permissible for private individuals to send printed journals and newspapers. THE RAILWAY GAZETTE possesses the necessary permit and machinery for such dispatch, and any reader desirous of arranging for copies to be delivered to an agent or correspondent overseas should place the order with us together with the necessary delivery instructions.

We would emphasise that copies addressed to places in Great Britain should not be re-directed to places overseas, as they are stopped under the provisions of Statutory Rules & Orders No. 1190 of 1940

TO CALLERS AND TELEPHONERS

Until further notice our office hours are:—

Mondays to Fridays – 9.30 a.m. till 3.45 p.m.

The office will be closed on Saturdays

Wagon Capacities and Loads

IN the House of Commons on November 13, during the debate on the railway agreement, Mr. Clement Davies criticised the smallness of the average load carried by railway wagons and also the speed of average trains. Although these matters have been dealt with in the past in these columns, the frequency with which the points emphasised by Mr. Davies are made suggests that there is still a large body of public opinion which does not appreciate the true position. He declared that the average load of general merchandise was only 2.8 tons, and that something under one third of the capacity of the truck was carried. While it is a fact that the average wagon load of general merchandise in 1938—the last year for which these statistics are available—was 2.81 tons and that the average capacity for general goods was 10 tons, the figure of 2.81 tons is calculated by dividing ton-miles by loaded-wagon miles, and the average load for each class of traffic was: merchandise 2.81; minerals 9.77; coal and coke 9.78; and for all freight 5.55 tons. The average load for all traffic other than merchandise, it will be seen, is good in relation to wagon capacity, and this gives the key to the fallacy in the argument which is very frequently propounded. Coal, coke, and minerals all load well, for a wagon can be filled with these commodities, and the full weight is obtained; but general merchandise is of a widely varying nature, and it may include such freight as empty boxes. In that case the capacity of the wagon might be fully occupied, but the weight carried would be no more than some 1½ tons. A 12-ton standard railway wagon is filled to capacity if it conveys 9 tons of bagged potatoes, or 6 cwt. of pottery crates without straw, or 2 ton 10 cwt. of empty beer barrels. In other words, it is not realised that wagon tonnage capacity is very different from wagon cubic capacity and that the load in a wagon is frequently limited not by the former but by the latter.

* * * *

Freight Train Speeds

Mr. Clement Davies, speaking in the railway debate, also called attention to the fact that, although locomotives can haul trains of from 500 to 1,000 tons, the average weight hauled was but 124 tons. The figure of 124 tons is calculated by dividing ton-miles by freight-train miles, and the number of wagons in each train can be calculated by dividing wagon-miles by train-miles. The result for 1938 on this basis was 33.67. If each of these wagons had carried a load of 12 tons the load of a train would have been 404 tons, but, as has already been explained, this result is not achieved because of the varying nature of the traffic and the cubic capacity of the wagons. In 1938, too, as Mr. Smith also declared, the speed of freight trains was 9.15 train miles per train-engine-hour. It is necessary to point out, however, that this statistic is not, in fact, speed of movement. Train miles include loaded, empty, engine, and brake; train hours include time occupied working trains, time trains are standing at signals, intervals between trains (of course exclusive of time spent on locomotive duties and shunting), and light running of train engines between shed and station or depot when the distance is under 40 chains. As is so often the case of criticisms levelled against railway working, the mere statement of figures of this kind, although superficially impressive, may be extremely misleading unless their basis is examined carefully.

* * * *

Gill Sans

In an age of ever-increasing specialisation it is comparatively unusual for an influence on any aspect of railways to be exercised by one completely outside railway circles, and not a few inventors have regretted the apparent impossibility of breaking into what they regard as a closed circle. In one sense Eric Gill, who died in an Uxbridge nursing home on November 17, after an operation, may be regarded as an exception to this generalisation, and yet it would be more correct to consider his railway work as an epitome of specialisation. Arthur Eric Rowton Gill was born at Brighton on February 22, 1882, and studied at Chichester Art School. Carved lettering was the first craft he took up, inspired and

encouraged by Edward Johnston, whom he met as a teacher at the Central School of Arts and Crafts and who himself has earned lasting fame in transport circles as the designer of the lettering used by the old Underground group and now by the London Passenger Transport Board. Eric Gill has been well described by *The Times* as a forceful, refined, and single-minded artist, who acquired a reputation in four distinct branches of artistic practice. It is with the fourth—namely, the design of printing types—that he left his mark on British railways, since the adoption by the L.N.E.R. of his clean, gracefully-designed, and austere Gill Sans type found for all that company's public notices and lettering. Eric Gill's influence, however, has been far more widespread than the mere adoption of one of his type designs by an important British railway. He was an implacable foe of the redundant, and it is possible that only a later generation will render him his due as having played no mean part in replacing the florid and unreadable by the aesthetically satisfying and efficient.

* * *

Overseas Railway Traffics

Further depressing traffic statements are recorded by Argentine railways for the 19th and 20th weeks of the financial year, with the exception of the Argentine North Eastern which has an increase of 12,600 pesos for the two weeks. The Great Western of Brazil continues to show moderate advances both in sterling and currency receipts, and its traffics for the 46 weeks of the current year amount to £470,700, representing an increase of £7,597 and 2,457 contos. On the San Paulo for the 44th and 45th weeks there have been small decreases both in sterling and currency, but the receipts for the year to date show an increase of £158,007, although currency receipts are 1,514 contos down.

	No. of Week	Weekly Traffics	Inc. or Decrease	Aggregate Traffic	Increase or Decrease
Buenos Ayres & Pacific*	20th	1,173	30	22,382	1,806
Buenos Ayres Great Southern*	20th	2,018	164	37,591	1,541
Buenos Ayres Western*	20th	763	89	12,823	1,286
Central Argentine*	20th	1,317	458	26,698	10,420
Canadian Pacific	46th	682,800	+ 1,800	29,168,400	+ 3,343,400
Bombay, Baroda & Central India	30th	244,575	+ 3,075	5,822,250	+ 643,650

* Traffic returns in thousands of pesos.

Central Uruguay traffics for the 16 weeks of the financial year show an increase of £42,001, with a fall, however, in currency takings.

* * *

The Travelling Post Office

A familiar feature of railway operation is the use of travelling post office vehicles for sorting letters during train journeys. This practice was adopted experimentally between Birmingham and Liverpool on January 6, 1838, and has been used ever since until a week or two ago. A further development was the devising of mail exchange apparatus to pick up and discharge mail while the train was travelling at speed, and this is distinctively, if not exclusively, a British practice. As early as February, 1839, such apparatus was reported to be working efficiently. During the war of 1914-19 it was found necessary to discontinue many of the travelling post offices in Great Britain, but the service was never suspended in its entirety. At the outbreak of the present war, however, the lineside apparatus for the exchange of mail bags was put out of use, although T.P.O. vehicles continued to run as sorting vans until September 22 of the present year. Attention to this matter has recently been directed by a Question in Parliament which we reported at page 553 last week. The reply pointed out that satisfactory postal services by T.P.Os. is dependent upon an elaborate and closely-linked network of cross-country services, and presupposes regularity of running. Under present-day conditions it is not possible for railway connections to be maintained regularly and therefore the sorting of mails on trains has lost much of its usefulness. Stowage vans continue to run, however, in place of T.P.Os. and a train of these is still worked as the up and down Postal between London and Aberdeen. Although sorting in T.P.Os. has been suspended, post office sorters still travel in the more important mail trains, to ensure the expeditious handling of the mails.

Manchester's Coal Supplies

Mr. E. J. H. Lemon, Vice-President, Traffic and Operating, L.M.S.R., and Mr. J. E. Kitching, Mineral Manager, L.N.E.R., during a visit to Manchester last week were able to deal trenchantly with criticisms which had been made of inadequate coal movement to that area by the railways. In *THE RAILWAY GAZETTE* last week we quoted figures given by Sir Ralph Wedgwood, Chairman of the Railway Executive Committee, which showed conclusively that any coal shortage in the Manchester area was attributable to the delay in unloading wagons and not to the lack of provision of fuel by the railways. Mr. Lemon, the main points of whose statement are reproduced on page 580, gave further details which suggest that there is a great deal of room for improvement in the unloading of wagons by consignees. Despite the constant and urgent appeals which have been made by the Minister of Transport and by the railways for the speedy release of wagons, there is no doubt that in many parts of the country serious delays still occur. The effect of this, at a time when it is vital to the national war effort that every railway wagon should be constantly employed in its true function of transporting fuel or merchandise and not as acting as a store or warehouse, may have grave repercussions. In the House of Commons on November 13 the Minister of Transport spoke of taking drastic steps to overcome the hold-up of wagons. The need for stern measures to ameliorate the present position is patent and action by the Minister should be taken at once. In present circumstances the responsibility is his, and in view of the onus which rests upon him it is to be hoped that the steps taken will be both speedy and effective.

* * *

G.W.R. Annual Meeting Date Extended

In virtue of his powers under the Defence (General) Regulations, the Minister of Transport has made the Great Western Railway (Relaxation) Order, 1940. It specifies that the general meeting of the company may be held at any time before the end of March in each year. Hitherto, the Great Western Railway Company has been bound by Statute to hold its annual meeting in the month of February, or from two to four weeks earlier in the year than the other main-line companies. It will be recalled that early this year, because of the delay in concluding the main heads of the financial agreement with the Government and the resulting impossibility of ascertaining the amount of revenue accruing to the company, it was necessary to postpone the issue of the dividend warrants on the consolidated guaranteed, consolidated preference, redeemable preference, and consolidated ordinary stocks. The meeting was held on the latest possible date—February 28. There is no reason to suppose that the step just taken by the Minister is in expectation of circumstances arising next year which would necessitate postponement of the meeting. It will enable the company to hold its meeting at a time more closely in accord with those of the other companies and will thus bring it into line with those other members of the pool which are controlled as an entity by the Government under the wartime scheme.

* * *

Preparation of Point and Crossing Work

The design of point and crossing work in the early days of railways, and, indeed, up to well into the present century, was not generally given anything like the attention that has been devoted to it in more recent years, nor was the preparation of the work before laying it in the track the subject of any great consideration; but with the general tendency towards higher speeds and the increasing need for economy, both the design and the preparation of complicated track work have developed until now they have reached the stage almost of a fine art. In our issue of October 11 we described and illustrated the modern methods of point and crossing renewal adopted on the L.M.S.R., which represent probably the last word in refinement. It should not be supposed, however, that other railways are far, if at all, behind, although their methods may slightly differ, nor should the process of evolution which has led up to the present excellence be overlooked. As long as thirty years ago two of the

Scottish constituents of the L.M.S.R. had adopted the practice of pre-assembly, marking, and even attaching the signal gear, before sending point and crossing work out to be laid in the track, and the practice has been widely followed by other lines. There can be no doubt that the extra work of pre-assembly has been amply repaid in shorter line occupations and better results than could possibly be achieved without it.

* * *

American Signal Legislation

In marked contrast to the relatively simple yet comprehensive requirements covering signalling and safety measures imposed in Great Britain under Statutory Authority by the Ministry of Transport, are the official regulations issued by the competent authorities in certain other countries. In the U.S.A., for instance, where the matter is dealt with by the Bureau of Safety of the Interstate Commerce Commission, amendments passed in 1937 to the Interstate Commerce Act have resulted in the issue of a most elaborate set of requirements, with due power of inspection to ensure compliance, covering design and installation of all forms of signal equipment, from mechanical signalling apparatus to the highly developed cab signalling and A.T.C. systems. Even forms and procedure for testing and the periodical intervals between tests are laid down, with regulations governing the exact construction of mechanical and electric locking and other devices. This legislation was not passed without much opposition from some quarters and considerable discussion with the railways. The results afford a good general idea of the trend of signalling in America today and the influence of the Association of American Railroads.

* * *

Dimming the Colour Lights

Work in connection with dimming of colour-light signals during hours of darkness is being carried out, we understand, as fast as circumstances permit. Such an arrangement has all along existed on one important and busy section of line equipped some years ago with light signals. Apart from any other advantage the change is intended to bring, we believe that the drivers will welcome the reduction in the glare at night. Many foreign signal installations already include night dimming of the lights, controlled by light-sensitive relays. In fog or falling snow the full light intensity will, of course, be used. We also understand that on one line at least the "P" signs are being put out of use for the time being, and the telephone alone used in connection with passing a failed signal at "danger"; numbers of intermediate colour-light block signal locations are also being put out of service on the same railway. Whatever may be the facts about visibility from above, many members of the public were undoubtedly uneasy about the light signals.

* * *

Avoiding London

In addition to the outer-suburban stops by expresses which we lately suggested as a means of avoiding the passage through London for many travellers, extended use of connections off semi-fast trains which already call there could provide further relief. Some of these existing possibilities do not appear to be as well known as they might be, as witness the slight scepticism with which earlier in the war the booking clerk gave us a ticket from Watford to Cambridge *via* Bletchley. In distance this is approximately the same as travelling *via* Euston and Liverpool Street, and in time, allowing a reasonable margin for crossing London and finding a seat at Liverpool Street, there was an appreciable gain by the trains we used in favour of the direct route. We have in mind particularly journeys of moderate length to destinations on a different railway. For instance, still considering the L.M.S.R. Western Division, there are useful cross-country links from Northampton to Peterborough, and from Rugby to Leicester, and there are plenty of trains from the outer suburbs to the two junction points. Unfortunately, connections are not always as convenient as ours to Cambridge, although in the course of a long war there may be time for experiment with the timetables.

Export Groups and Export Credits

NOTWITHSTANDING the growing momentum of the war effort, the Government does not cease to impress on the industrialists of this country the paramount need for increasing the sales of our products overseas. Indeed, it may be said that the very size of the increase in our national effort is the measure of the need for the expansion of export trade. In the practical field the Government has two main means through which it renders assistance to the individual industrialist. The first, the formation of export groups which are watched over and fostered by the Export Council of the Board of Trade, is an innovation which has been directly due to the war and the conditions which have arisen from it. The second, the assistance in financing contracts which is extended by the Export Credits Guarantee Department, has a longer history, and from time to time the original scheme has been subject to modifications to adapt it to changing conditions. Some measure of both of these may be obtained by consideration of the fact that the number of export groups formed so far has been some 300 and that the Export Credits Guarantee Department, during the quarter ended September 30, 1940, assumed liability up to a maximum of £9,099,929 in respect of contracts, policies, and guarantees amounting to £26,147,807. Of the export group system it has been said that it has given to our commerce and industry "a new structure and a new partnership which combined the best elements of collective action with undiminished opportunity for individual enterprise and personal initiative." Those words were used by Sir Cecil M. Weir, an Executive Member of the Export Council of the Board of Trade when he addressed the Lincoln Chamber of Commerce on October 10.

Time will show whether the promise of such round phrases will be borne out; but sight should not be lost of the inherent weaknesses as well as strength of mutual schemes of this kind. During the war the great advantage which members of these groups hope to obtain is that of making certain of a supply of raw materials. The Government has promised that an allocation will be made to these groups, and to a very large extent it has fulfilled its word. The exception which requires qualification is the large and important section of trade represented by the steel-using industries, and even there it must be said that in some part at least raw material difficulties which were obstructing export trade have been overcome. It is, of course, an essential part of the export group system that competing elements within an industry are brought into close and intimate contact with one another and that, in effect, personal ambitions are made subject to the rule of the greatest good for the greatest number. In war that may well be necessary, and indeed in certain aspects of seeking overseas business British traders have in the past been penalised by reason of their individuality in comparison with the consortium methods adopted in particular by the Germans and Italians. In dealing with overseas markets there is more to be said for co-operative effort than there is for similar action in the home trade, and the disabilities which may flow from dependence on the closeness of liaison between all manufacturers of a given commodity are very real. There is a good deal to be said for the stimulus which comes from competition, with its constant incentive to improved and more economic methods and production. All too often the tendency which results from closer working brought about by special conditions is for the more powerful companies to swallow the weaker without regard to the fact that the latter may be serving a very useful function by the vigour of their technical progress—which may, in fact, be one reason for its weaker finances. When the time comes for the transference of manufacture from a wartime to peacetime basis there is little doubt that the export groups will prove of considerable value in the greater stability that their existence will lend to industry, but when once the transition period has been passed there will probably be a good case for reverting to individual trading.

The second means whereby the Government is able to assist and stimulate export trade is through the Export Credits Guarantee Department. There can be no doubt that in some instances the assistance which this department has

rendered to British industry has been very substantial, but there is still some doubt as to whether the procedure and policy of that organisation is sufficiently elastic for it to cope with wartime needs. In the main the department has shown a very proper regard for its responsibilities for the use of public funds, for ultimately, of course, heavy losses made by the department would fall upon the Exchequer. At the same time there would seem to be justification for urging bolder and more vigorous policy in times such as these when the paramount need is to increase the volume of our overseas sales. In the past, criticism has often been made—it is still true to a considerable extent—that the department is largely desirous of underwriting the risks of business which manufacturers themselves can reasonably carry. The industrialist seeks and accepts the assistance of the Exports Credits Guarantee Department very largely because in that way he secures complete assurance against loss, and saves himself from any possibility of recrimination from his shareholders. The function of a department such as this should surely be extended so as to cover risks which the industrialist cannot reasonably be asked to shoulder; that indeed was the avowed object of the scheme at its inception. One illustration may be given of the manner in which foreign competitors are frequently able to make their offers more attractive than the British tenderer. It is practically impossible to induce the Export Credits Guarantee Department to consider really long-term contracts. This is not so with competitors we have to meet in overseas markets. Before the war Germany, Italy, and the U.S.A. were frequently willing to accept payment for large works spread over periods sometimes as far ahead as twelve years or more. This protracted financing has not proved acceptable to the British authorities. In *THE RAILWAY GAZETTE* of October 18 (*Electric Traction Section*) we showed that the Electrical Export Corporation, an American undertaking, had secured a contract for the electrification of part of the Sorocabana Railway in Brazil, and that its success was due very largely to the fact that it offered to take payment in six-monthly instalments spread over ten years for dollars. If British industrialists are effectively to promote the extension of our trade abroad, it would seem that steps must be taken to increase the length of credit which they are in a position to offer potential customers. The financial strength of the Export Credits Guarantee Department, built up over many years of conservative trading, is ample for the purpose, and it would seem that the exigencies of the times call for bolder tactics than may have been sufficient in the past. There can be no question that the risk increases, perhaps disproportionately, with the extension of the time for repayment, but the needs of wartime would justify greater vigour and longer vision in order that greater results may be achieved.

High Initial or Low Back Pressure?

ABOUT ten years ago traffic had grown to such an extent on the main line of the then P.L.M. Railway (later the South Eastern Region of the French National Railways) that it became necessary to provide more powerful locomotives on the 29-mile section between Laroche and Dijon. There are long gradients of 1 in 125 in each direction leading to Blaisy-Bas summit on this stretch, and as heavy expresses followed one another at intervals of only about 12 min. at certain periods of the day, any delay on the heavy gradients was liable to become seriously cumulative. Locomotives with higher accelerative power, yet capable of sustained speeds of 75 m.p.h., were therefore required, and trials were carried out with several different designs, including a 4-cylinder compound 4-8-2 with 6 ft. 7 in. coupled wheels and a high-pressure water-tube boiler of the Schmidt-Henschel design operating at 1,560 lb. per sq. in. Soon after the locomotive left Laroche hauling an express train on April 25, 1933, one of the mild steel tubes in the primary circuit burst, as mentioned in an illustrated article we published last week, describing the investigation which was undertaken to ascertain the cause. This showed that the burst occurred at about the centre of the slightly inclined upper portion of the tube, which was one of a series running from the lower header (used as foundation ring) up the side of

the firebox and across to the upper header on the opposite side. There was never any doubt that the failure was due to overheating, but there was a possibility that the overheating might have been local and due to an adventitious obstruction. However, by a series of mechanical tests and microscopic examinations, supplemented by a closely-reasoned process of scientific deduction, the engineer charged to investigate and report on the mishap arrived at the conclusion that a general inadequacy of circulation existed not only in the tube which failed, but also in a number of adjoining tubes, all of which were consequently more or less equally liable to burst. Microscopic examination of these tubes revealed a remarkable degree of grain growth or recrystallisation in the parts most exposed to the fire. The elastic limit of the metal affected was substantially reduced, and the resilience was reduced to one-quarter of the normal value. The evidence that the tubes were exposed to a temperature of 500-550° C. (932-1,022° F.) for a period probably exceeding 1,500 hr. is a clear indication of inadequate circulation, the temperature of the water at a pressure of 1,560 lb. being some 184-234° C. (331-421° F.) lower. The need for increased attention to the whole question of circulation in extra-high pressure boilers was thus made evident. Also, it appeared that the temperatures reached might easily reduce the elastic and creep limits of mild steel to less than the working stress in the tubes, making the use of alloy steels essential. The experiments of M. Chapelon were about that time bearing fruit in the remarkable performances of the Paris-Orleans Pacific locomotives rebuilt to his specifications. These aimed less at increasing the boiler pressure than at reducing losses due to wiredrawing and back pressure, and such were the gains achieved by the enlargement and better design of steam passages, including valves and exhaust arrangements, that practically all the benefits hoped for from a high initial pressure were achieved with no risk and much less expense. The principles established by M. Chapelon were gradually applied to hundreds of existing locomotives in France, and the solution of the problem on the P.L.M. was solved by the introduction of his design of 4-8-0 express engine, of which a number were being built for service on the Laroche-Dijon section at the time of the outbreak of war.

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

Government Insurance and Railway Dividends

Bordyke, Burgess Hill,
Sussex, November 11

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—In the article "Report on Higher Charges," in your issue of November 8 (pp. 479-80), it is stated that the Government intends that the railways insure their property under the Government scheme instead of being allowed to charge up to £10,000,000 per annum for reinstating railway property destroyed or damaged as a result of enemy action.

It is proposed under the Government scheme of property insurance that no payment of compensation to insurers will be made until after the close of the war—which may be some years hence. If this plan be applied to the railways, whence is the money to come to carry out the reinstatement and repairs?

Obviously the railways will not possess the money to reinstate the portions destroyed and make good other damage, after meeting their usual obligations, including those to the stockholders. If reparations are not carried out as soon as possible after damage has been done, the whole railway system will practically be wiped out as far as its utility is concerned, and traffic of all kinds will cease. Moreover, the railways will have no funds with which to pay the damage insurance premiums to the Government.

As the boards of directors are still in existence, and presumably functioning, I suggest the points I have mentioned be cleared up at once.

Yours faithfully,
G. A. SEKON

PUBLICATIONS RECEIVED

Historic Melingriffith. By Edgar L. Chappell. Cardiff: Priory Press Limited, the Friary. 8½ in. × 5½ in. 87 pp. + folding plate. Paper covers. Price 2s. 6d. net.—The story of the ancient industrial establishments is really part of the history of the Industrial Revolution, and, in view of the profound effect on modern life of that development, it is to be regretted that similar attention has not been paid to industrial history as has to military and ecclesiastical history. In recent years, however, various conscientious writers have endeavoured to make good the deficiency in the literature on the subject, and Mr. Chappell's little volume is no mean contribution on the early metallurgical history of South Wales. He is concerned primarily with the Melingriffith Tinplate Works, and its associated undertaking, the Pentyrch Iron Works, and on his own showing the story is incomplete by reason of the destruction a few years ago of a considerable collection of ancient correspondence, account books, and other relics stored at Melingriffith. Nevertheless his researches have provided an excellent and informative outline, and have thrown new light on the activities of such famous names as Harford and Richard Thomas. Satisfactory transport was one of the great difficulties of early years, and it is interesting to

learn that in or before 1815 Richard Blakemore constructed a narrow-gauge tramroad between the two works, crossing the river Taff by a bridge near Cilynys farm. This bridge seems to have been carried on iron pillars fixed in the river bed—a method which gave rise to considerable inconvenience from time to time owing to the damage occasioned by heavy floods. It is stated locally that the bridge was washed away several times, and that about 1877, when it was completely destroyed, a new single-span iron bridge, which still exists, was built to replace it. With this reconstruction the entire railway is said to have been made wide enough to carry locomotives and modern railway vehicles.

American Railway Signaling Principles and Practices. Chapter IV: Centralized Traffic Control. New York: Signal Section, Association of American Railroads, 30, Vesey Street 9 in. × 6 in. Price \$1.25.—One of the most remarkable developments in the power operation of points and signals in the last twenty years has been the introduction of centralised traffic control (C.T.C.), applied first on American railways and later on a few lines in Europe and the British colonies. Its practical result has been to extend the range of power working almost indefinitely, by

making possible a large number of controls over a very few wires. The system is peculiarly adapted to American conditions, especially on single lines. The various circuit arrangements, devised from time to time, to give effect to the C.T.C. principle, are somewhat involved, and a good deal of study is required to master them. In this carefully compiled and well illustrated publication they are treated in detail in such a way that the operation of the numerous relays, switches, and so on can be thoroughly followed. The work—a chapter in a complete treatise—is a welcome addition to signalling literature, as the subject of C.T.C. working has hitherto wanted a handy and concise guide. The diagrams are very clearly drawn, if unavoidably crowded in some cases, and the plates arranged to open clear of the text, a great advantage to the student.

Pacific Railway of Costa Rica.—We have received, by courtesy of the General Manager of the Pacific Railway of Costa Rica, Señor Claudio Cortes, an illustrated brochure published on the occasion of the opening to service of the new headquarters offices and workshops at San José. The book is illustrated with photographs of the chief officers of the staff, and also contains descriptions and views of many of the stations and other dependencies of the railway.

THE SCRAP HEAP

ACCELERATION OF THE MAIL

We hear that it is intended to accelerate the arrival of the Aberdeen mail from the north two hours. This is to be effected by starting an hour earlier from Aberdeen, and by saving another hour by transferring the mail at Arbroath to the railway train.—*From a Perth paper of November, 1840, quoted in "The Glasgow Herald."*

An unusual claim was recently made against the Great Southern Railways Company at Cork Circuit Court. The case for the plaintiff, who claimed £100 damages, was that the tyre of the wheel of an engine became detached as the engine was passing his cottage, and there was a loud explosion at the door of the cottage, and a further noise as some object struck an adjacent wall. He and his wife suffered from shock. The claim was dismissed.

THE 5 FT. 6 IN. GAUGE IN ARGENTINA

According to our contemporary *Indian Engineering*, the first locomotive in Argentina was originally built in Leeds for an Indian 5 ft. 6 in. gauge railway in 1854. This engine was, however, sent first to the Crimea on military duty, but was afterwards sold

to a firm of contractors which was building the first railway in Argentina, opened in 1857. The engine thus found its way to South America instead of to India, and, due to this historical accident, the gauge of the British-owned and other railways in Argentina was fixed as 5 ft. 6 in.

All-steel passenger vehicles were first introduced in the U.S.A. in 1905-6, and the first light-weight aluminium alloy streamline trains in 1934; 108 of these trains were placed in service in the six-year period 1934-39. Air-conditioning was begun in earnest in 1927, the first Pullman sleeping car being so equipped in that year.

BROADWAY LIMITED, FILM-STAR

"Broadway Limited" is the title of a new American film, which is at present being photographed on the Pennsylvania main line and elsewhere. The scene is laid in the course of the Broadway's overnight run from Chicago to New York. Its even tenor is, however, broken by the sudden flood in a river which threatens to cause the bursting of a dam and the overwhelming of a town. To check the flood a train load of freight cars are rushed to

the river at great speed by borrowing the locomotive of the Broadway, and there they are sacrificed by being pitched into the flood in order to stem it and so save the dam and town. Meanwhile the Broadway train is taken on by a small branch-line engine, which, thanks to the prowess of a film-star driver, brings it into Harrisburg on time, despite all previous delays.

On December 31, 1938, there were 236,842 route-miles of railway open for traffic in the United States, or approximately 30 per cent. of the route-mileage throughout the world. There was a mile of line in that country for every 13 sq. miles of land area, whereas throughout the remainder of the world the proportion was one mile of railway for every 100 sq. miles. Also there was one mile for every 550 persons in the States, compared with one mile for every 3,277 persons in the rest of the world, according to *Quiz*. At the beginning of 1939 the route-mileage of standard gauge in the States was 235,386 or 99.4 per cent. of the total.

At the beginning of 1933 there were 2,039,229 freight cars in the U.S.A., 1,754,160 railway-owned and 285,069 only privately-owned. The corresponding numbers of refrigerator cars were 147,187 in all, 23,232 railway- and 123,955 privately-owned.

OVERSEAS RAILWAY AFFAIRS

(From our special correspondents)

NEW SOUTH WALES

Improved Financial Results in 1939-40

The year which closed on June 30 last showed improved results. The shortage, after providing for all statutory debits, was £443,833, as compared with £1,171,522 in the previous year. Summarised, the financial results, compared with the previous year, were:—

	Year ended June 30		Increase
	1939	1940	
Earnings	£19,146,441	£19,954,851	£808,410
Working expenses	14,542,980	14,646,934	103,954
Balance—Profit on operations	4,603,461	£5,307,917	704,456

To the balance of £5,307,917 has to be added the Government contribution towards the losses on working of country developmental lines amounting to £800,000, thus making the net earnings £6,107,917. Statutory charges totalled £6,551,750. Included in this were: Interest, £5,350,000; exchange, £690,000; Sinking Fund, £483,667, and loan management expenses, £28,083.

Adverse Effects of the Coal Strike

A shortage in the railway accounts of £300,000 had been anticipated when the estimates were prepared, so that the final shortage of £443,833 was nearly in accord with expectation. In considering the result obtained, the following factors, which had considerable bearing thereon, should be stressed:—

(1) Industrial trouble on the coalfields interfered with the production not only of coal, but of other goods, and for a period of over two months was responsible for restricted passenger and goods traffics. The loss in railway revenue arising out of the strike has been estimated at £800,000.

(2) Railway working expenses, as compared with the previous year, increased by £103,954. This figure would have been much higher had steps not been taken to supervise all expenditure very closely, to effect economies during the period of operation of the coal strike, and to defer certain maintenance works.

During the year the railway earnings totalled £19,954,851, and, despite the long-drawn-out coal strike, this constituted a record for the New South Wales Railways. Previously the best result was that achieved in 1928-1929, when receipts were £19,615,616. A factor which contributed largely to the better earnings was the increase of 10 per cent. in fares and freights which operated from March 1, 1939. Had the miners on the coalfields continued at work, there is no doubt that a surplus would have been recorded in the accounts, as the resultant loss of revenue, £800,000,

would have been more than sufficient to offset the deficiency of £443,833.

EIRE

The Irish Tourist Association

The annual general meeting of the Irish Tourist Association was held at the Gresham Hotel, Dublin, on October 23. Among other points made by Mr. F. A. Moran, the outgoing President, when moving the adoption of the report were the following:—

Despite the threatened gloom suggested by seemingly overwhelming difficulties resulting from the war, a spirit of optimism had been maintained, and, as a consequence of a determination last year not to become panicky or to be stampeded, and of the loyal and generous response of members, the association was today in a stronger financial position than ever before. Moreover, local authorities throughout the country had voted public funds for publicity almost on a pre-war scale, which was most encouraging.

The main activities of the association had been directed towards encouraging home patronage of Irish resorts, rather than to attracting visitors from overseas. Press advertising had been on a wider scale than before, and an information bureau had been opened in Belfast. The association had encouraged holiday savings clubs in Irish industries on national lines with considerable success.

Mr. J. W. Morgan was elected President for the current year.

INDIA

Cost of Living Inquiry

As the meeting in March last between the Railway Board and representatives of the All-India Railwaymen's Federation came to no conclusive decision upon the men's claim for higher wages or allowances commensurate with the increased cost of living, the matter has now been referred to an independent tribunal in accordance with the Trades Disputes Act. This body takes the form of a court of inquiry consisting of: The Hon. Mr. Justice B. N. Rau, Kt., C.I.E., I.C.S., Chairman; Sir Shafaat Ahmed Khan, and Mr. A. Hughes, I.C.S. The following are the terms of reference of the inquiry:—

- (1) What has been the rise in the cost of living for the lower paid staff since the outbreak of the war in the various areas in which they are employed?
- (2) Having regard to the previous movements in wages and prices does the rise since the outbreak of the war establish a case for a war allowance for the lower paid staff?
- (3) If so, in what areas and subject to what conditions should the allowance be given?
- (4) How should the allowances, if any, be regulated if in future the cost of living should rise or fall?

So as to insure a quick decision, it is proposed to confine the investigation to the G.I.P.R. but the Government of India has declared that any principles adopted on the recommendation of the

court for the grant of an allowance to G.I.P.R. workers may be equally applied to other State railways.

Views of Commercial Interests

During their monsoon tour, Mr. B. M. Staig, Financial Commissioner, and Mr. J. H. F. Raper, Member, Railway Board, discussed railway matters with the chambers of commerce at important commercial centres. At Calcutta, commercial interests represented to the board the necessity for an early reconsideration of the increase of 12½ per cent. in railway freights, as conditions had considerably changed just recently. It was urged that financial exigencies in the Central Government arising out of the war were only to be expected and railway contributions should not be chosen as a stabilising factor particularly if the means of ensuring such contributions reacted to the detriment of trade and industry.

On the question of the purchase by the State of company-managed railways, the suggestion was made that the acquisition of the B.B. & C.I. and A.-B. Railways would result in economy and administrative efficiency if they were amalgamated with other railways. Disappointment was expressed with the decision of the Government to postpone the manufacture in India of locomotives till the termination of the war.

FEDERATED MALAY STATES

Government Railway Notes

The total revenue for the period January to July, 1940, was £1,299,824 compared with £945,028 for the corresponding period in 1939.

A large transit shed or warehouse has been brought into use adjoining Prai wharf. A special feature is its sloping floor, which is at wharf level on the seaward side rising to wagon-floor level on the inland side, along which runs a siding.

SIERRA LEONE

1939 Results

The route-mileage of the 2 ft. 6 in. gauge railway owned and worked by the Government at the end of 1939 was 310 miles, and there were in addition 17 miles of sidings and loops. The permanent way consists of 30-ft. 30-lb. rails on steel sleepers except in turnouts where wooden timbers are used. The administration also maintains 25 route-miles of bus services.

During 1939 82,630 tons of freight were carried and the ton-mileage was 11,831,623. The number of passengers conveyed was 622,673 and the passenger-mileage was 14,169,372. Working revenue totalled £179,356 and other revenue £14,291; working expenses absorbed £159,817 including interest on stocks and bonds owned; other expenses were £47,276.

There are 37 locomotives (four are laid up), 63 passenger vehicles, and 309 goods wagons, according to a report by the American Consulate at Lagos, Nigeria.

ROAD TRANSPORT SECTION

This section appears at four-weekly intervals

The Problems of Howrah Bridge

THE design of the new Howrah cantilever bridge briefly described at page 564, with its 1,500 ft. bank-to-bank span across the Hooghly, reminds us of the fact that even the slightest obstruction to the flow of such rivers as those in the alluvial delta of the Ganges—and of the swiftly tidal Hooghly in particular—may set up dangerous scour in the river-bed with far-reaching effects. Like the existing pontoon bridge, the new structure will form the only connecting link between Calcutta and its important industrial suburb, Howrah, and with its principal railway terminus, serving both the East Indian and Bengal-Nagpur Railways. Heavy local as well as main-line traffic from almost the whole of India converges upon Howrah terminus, and, for reasons of both enhanced traffic facilities and relief to road congestion, it seems a pity that the bridge was not designed to carry road and rail traffic, so that the latter could be carried into the heart of the city. Such a central station scheme was examined by competent engineers, but the cost of rail

approaches to the bridge and to the proposed central station, through the business quarter, was found to be enormous, quite apart from the additional cost of the bridge itself. Calcutta must, therefore, remain connected with Howrah by this single road bridge, which, it is confidently expected, will suffice to carry all the traffic for many years to come, especially as a little more rail passenger traffic from northern India may be diverted to Sealdah terminus via the Bally bridge and Eastern Bengal Railway, as may be seen from the map accompanying our article. Sealdah station, however, already caters for a very heavy E.B.R. local traffic at certain times of the day, and its capacity is limited. Coal traffic destined for Kidderpore docks, if railed via the E.I.R., crosses the Hooghly near Naihati and runs over the E.B.R. lines avoiding Sealdah; that from the B.-N.R. system crosses the Hooghly by wagon ferry at Garden Reach. These various traffic routings can more easily be followed by reference to the accompanying sketch map.

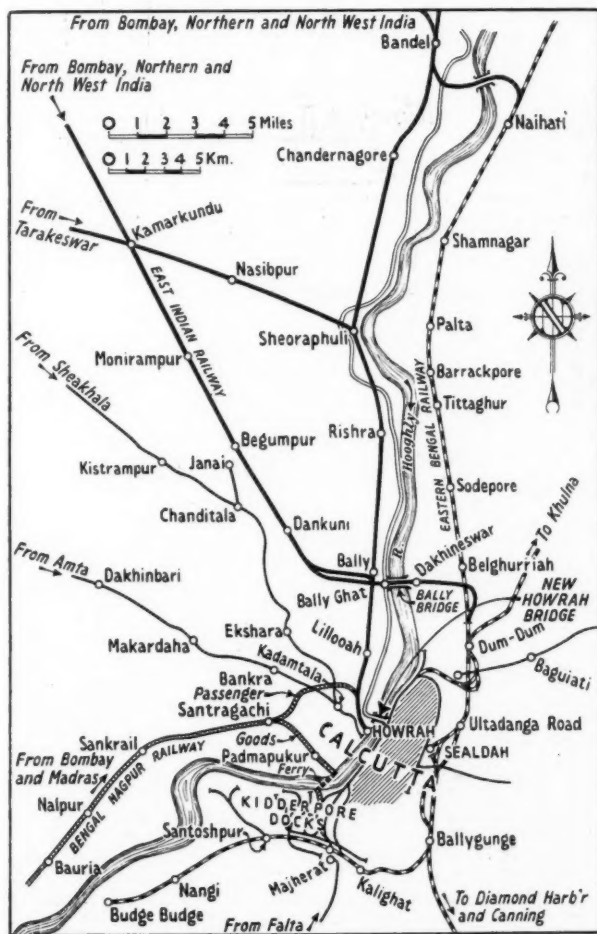
The Inter-American Highway

THE section of the great Inter-American highway—now being constructed or improved to link the North and South American countries adequately—which falls within the territories of the Central American states, is 3,257 miles in length. Of this total, 1,165 miles consist at the present time of paved road, 639 miles of all-weather, and 631 miles of dry-weather road, and 822 miles of trails or tracks. The Export-Import Bank has just loaned the Costa Rican Government \$4,600,000 for completing the 356 miles of the highway in that country, and similar loans are expected by the other Central American countries. Of the 1,712 miles of the highway falling within the confines of Mexico, 850 miles are already paved, but an almost equal length of road—between Mexico City and the Guatemala frontier—remains to be converted into a first-class highway. The 306 miles across Guatemala are in the form of an all-weather but not paved road. In El Salvador, 145 out of 181 miles are of all-weather quality; 90 miles fall in Honduras. The alignment in Nicaragua has been changed to avoid competition between the highway and the Pacific Railroad. This has delayed the work, but a recent \$2,500,000 loan from the Export-Import Bank is expected to hasten the completion of the 100 out of that country's 245-mile share of the road already under construction. In Panama the highway crosses the canal.

Road Transport in Spain

SOME figures quoted recently in a lecture by Sr. Eugenio Calderon in Madrid, give an idea of the importance attained by the road transport industry in Spain. The number of motor buses and lorries actually in circulation is estimated to be 25,000. There are 1,065 lines with "A" concession, working over some 37,000 km. (22,990 miles), while lines under "B" concessions are working over some 30,000 km. (18,641 miles). The number of firms actually engaged in passenger transport is 2,700, and there are also 850 carrying merchandise, with possibly 3,000 individual motor owners with isolated services. It is estimated that the earnings under concessions "A" and "B" may amount to as much as 200 million pesetas a year (£5,000,000) and the amount of merchandise transported by road is calculated at 100 millions of tons annually. The number of employees directly engaged in road transport is said to exceed 100,000, and the capital employed is over 1,000 million pesetas.

A service of trolleybuses was recently inaugurated in Bilbao. This is the first time the trolleybus has been used in Spain.



Sketch map of Calcutta and environs, showing the position of the new bridge and the routing of traffic by various bridges and by wagon ferry over the River Hooghly

The New Howrah Bridge, Calcutta

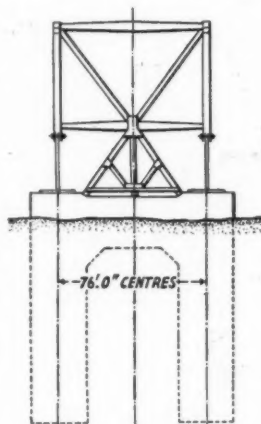
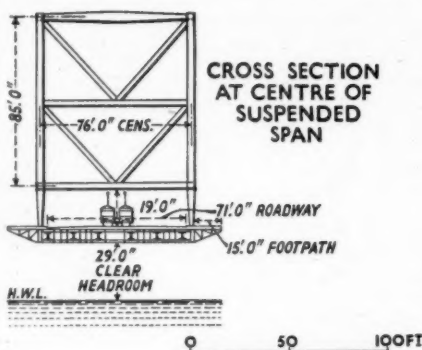
Some brief notes on the design and construction of this remarkable structure with its single main span over a quarter-of-a-mile in length

REFERENCE has been made on two or three occasions in our Overseas columns to the great road bridge that is at present being built to span the River Hooghly and connect Calcutta with its important suburb, Howrah. The significance of this bridge and other relevant matters are discussed in an editorial note at page 563. The new structure, which will replace the old pontoon bridge with its opening span—the cause of periodical delay to road traffic when open for navigation—is of the cantilever type and will have a clear span of 1,500 ft., made up of two 468-ft. cantilever arms and a central suspended span of 564 ft.; the anchor arms will each measure 325 ft., and the towers 270 ft., above the roadway. The clear headway throughout the middle 200 ft. of the span will be 29 ft. above high water and 46 ft. 6 in. above low water level. A 71-ft. roadway carrying two tramway tracks will be provided, and it will be flanked by two 15-ft. footways, cantilevered out beyond the main trusses. The total weights of steelwork used are 17,000 tons of high-tensile and 9,000 tons of mild steel.

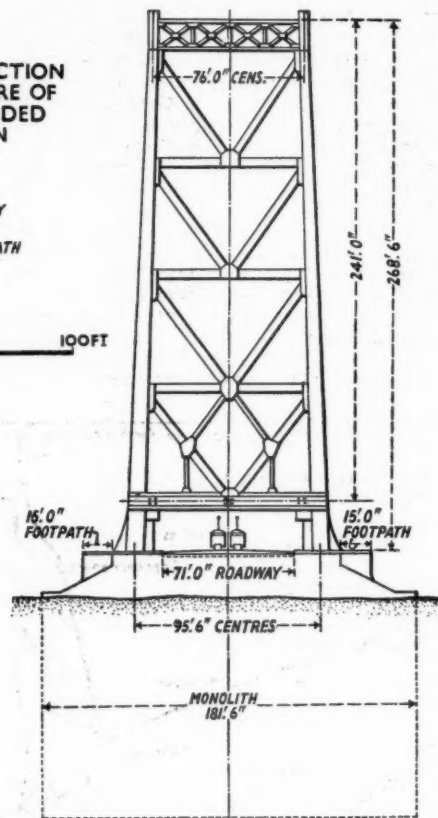
A structure of such magnitude has necessitated the construction of correspondingly massive foundations, in the form of six cellular ferro-concrete monoliths, which have now been completed. Each of the two great main pier monoliths measures 181 ft. 6 in. \times 81 ft. 6 in., is rectangular in section, and has three rows of seven dredging wells or chambers. These monoliths have been sunk by open dredging, one to a depth of 90 ft., and the other to 105 ft. below the level of the respective river banks. Each anchorage consists of two monoliths, 54 ft. \times 27 ft., one under each anchor-arm truss, tied together by a r.c. beam 25 ft. deep.

The erection of the steelwork is now well in hand and one of the anchor arms is already almost completely in position. Erection is being carried out mainly with the aid of two specially-designed twin electric crawler cranes, one to work from each end of the bridge. Each of these cranes has an undercarriage spanning the 70-odd feet between the main bridge girders, and has two independent jibs, mechanisms, and slewing platforms, one over each main girder truss. As may be seen from one of our illustrations, the jibs and slewing platforms are mounted on an inverted double A frame, hinged about its apex, so that whatever the inclination of the undercarriage may be—to suit that of the main girder top boom on which it is travelling at any particular time—the slewing centre of the jib is kept vertical by adjusting the angle between the cantilever part of the A frame and the undercarriage, for which special mechanism is provided.

The photographic illustration shows one of these cranes on a special inclined runway on which it moves backwards and upwards, erecting the lower part of the anchor arm as it goes. At the top of this incline, the crane is run on and secured to a triangular-framed cradle. Cradle and crane then proceed together forward and upward over temporary staging, and thence up the upper boom of the anchor arm, to complete the erection of that arm and the tower; the cradle and crane together weigh no less than 765 tons. Having reached the top of the tower—where the top of the



END VIEW
AND ANCHORAGE



CROSS SECTION AT MAIN TOWER

Cross sections of the bridge at various points showing the tramway tracks and footways, the anchorage and main pier monoliths

crane jib will be 476 ft. above river level—the crane will be unlocked from the cradle and will then move forward on to the top boom of the cantilever arm of the bridge, along which it will move as erection proceeds; the maximum travelling speed of the crane is 1 ft. a minute.

After reaching the end of the cantilever arm, the crane will discard 100 tons of its deadweight by the removal of cast-iron ballast and part of the machinery, so that it may be lighter by that figure to continue forward in the erection of its half of the suspended span. Once this span is joined up and the bridge completed, the cranes will dismantle one another in mid-span. Each jib is capable of lifting and slewing 60-ton loads at 45 ft. radius, or 20 tons at 90 ft. radius, and, as it can turn through 360 deg., the four jibs between them can lift and place in position every girder member.

Messrs. Rendel, Palmer & Tritton, Consulting Engineers, Westminster, are responsible for the design of the bridge, and are also the engineers for the works; we are indebted to them for assistance in preparing this brief article. Mr. A. M. Ward, M.Inst.C.E., is the Engineer to the Bridge Commissioners, and the Cleveland Bridge & Engineering Co. Ltd. is the main contractor, with the Braithwaite, Burn & Jessop Co. Ltd. as sub-contractor for the fabrication of the superstructure. The crawler cranes were designed and built by the Wellman Smith Owen Engineering Corp. Ltd. of London and Darlaston.



General view of beginning of girder erection. Note the creeper crane with twin jibs mounted on staging preparatory to moving to the left, where it will run on to and be locked to a triangular cradle on the reverse slope of the staging up which it will climb to the top boom of the anchor arm for erecting that arm

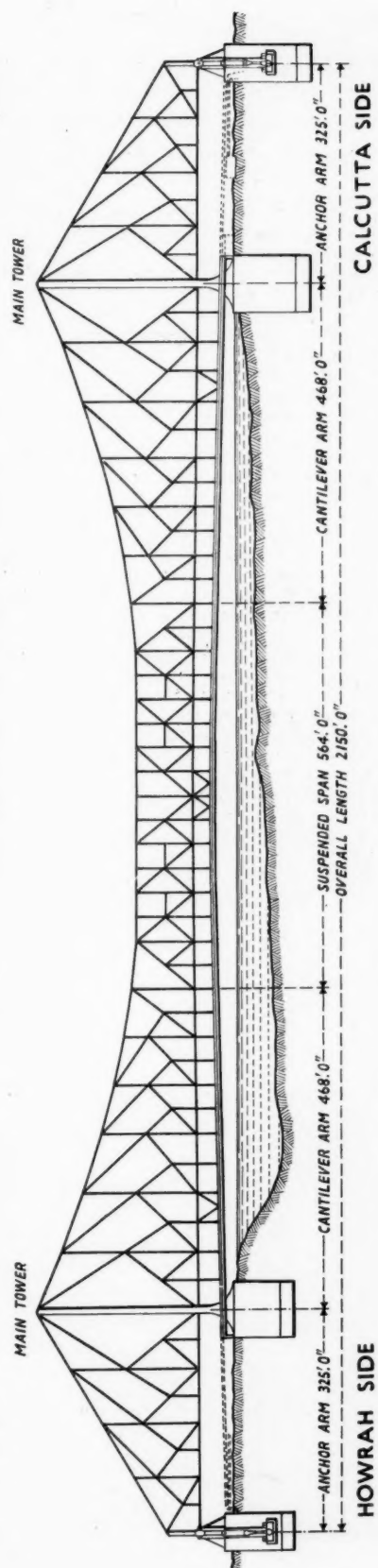


Diagram showing the side elevation of the new bridge over the River Hooghly connecting Calcutta with Howrah

THE NEW HOWRAH CANTILEVER ROAD BRIDGE

Road Transport and the War—15

Clearing up air raid damage—Removal of direction signs—Camouflage of road vehicles—British milestones—London buses and the blackout—Conductors for London buses—Lifts by private motorists—Continental road transport

Some misapprehension seems to have been caused by recent references to the employment of military in assisting with the clearance and salvage of debris and the restoration of roads and public utility services in the London Civil Defence Region. On taking up his duties as Special Commissioner for these purposes on September 29, Sir Warren Fisher asked the London County Council if it would be prepared to organise on his behalf a special service to supplement the resources of the local authorities for dealing with debris clearance and the salvage of materials in the County of London, East Ham, and West Ham. The London County Council readily agreed, and the County Councils for Middlesex, Essex, Kent, and Surrey similarly co-operated as regards their areas within the London Region. The London County Council is undertaking, in association with them, a co-ordinated survey of the whole Regional Area. Simultaneously, in order to make an early start on the heavy accumulation of arrears and to give time for the recruitment in the necessary numbers of suitable civilian labour required by the contractors to the councils, Sir Warren asked the Army Council for the temporary service of troops to assist on the various activities comprised in the Special Commissioner's responsibility. The Army Council willingly assented and the first Royal Engineer parties began work on October 11, and the first Pioneer parties on October 14. Sir Warren Fisher subsequently asked, and the Army Council agreed, that a senior Army officer should be seconded to his staff to work under him in intimate co-operation with officers from the London County Council which will continue to direct the general scheme under the authority of the Special Commissioner, whether the work is performed by civilian or military labour. The military assistance is not intended to replace or in any way affect the organisation set up by the London County Council—or other councils—on Sir Warren's behalf; what the Army Council was asked for by the Special Commissioner, and agreed to give, was assistance to the organisation brought into being under the responsibility of the Special Commissioner. There is, of course, no foundation for statements which have appeared to the effect that the work in connection with the clearance and salvage of debris and the restoration of roads and public utility services is under military control.

Removal of Direction Signs

The Minister of Home Security has modified the definition of a "sign" for the purposes of the Removal of Direction

Signs Order, 1940. This Order, which was issued on June 18 prohibited the display of any sign which furnished any indication of the name, or situation, or the direction of, or the distance to, any place. The expression "sign" included any direction post, place name, and map. It was provided that the Chief of Police might on application grant exemption from the provisions of the Order in respect of any sign to an extent and subject to such conditions as he might think fit.

On July 30 the Removal of Direction Signs (No. 2) Order, 1940, was made. This amended the original Order by providing that, in addition to the Chief of Police, the Minister of Transport might grant exemptions in respect of signs displayed on premises occupied by a railway company for the purposes of the railway undertaking. Also, whereas the first Order had stated that a sign should not be deemed to be displayed unless it could be seen and understood from a highway, the second Order added, after highway, "a train (whether stationary or not) on a railway, or a low-flying aircraft in the air."

In our Road Transport Section of June 28 it was recorded that the Minister of Transport had announced in the House of Commons that signposts and place names were to be removed or obliterated, and that some bus destination signs, and roadside timetables, maps, and so forth, had already been removed.

At the end of August special direction signposts began to be erected on important roads used by military convoys. They bear no place names but are marked with 8 points of the compass, such as "to north-west." They are Automobile Association signs, with the familiar black letters on a yellow background.

Camouflage of Road Vehicles

In the House of Commons on August 14 the Minister of Transport was asked whether he desired private motorcars to be camouflaged, and if so, whether he would give guidance as to how this should be done to distinguish them from Service vehicles. The Minister replied that an Order had been made that from August 26 no vehicle should be treated so as to resemble a camouflaged Service vehicle. Where that had been done it should be undone. If owners wished to make their cars less conspicuous, glossy surfaces and light colours should be avoided, and also Service grey or khaki. In reply to further questions, he said that he thought that red lorries carrying petrol and inflammable materials might well be camouflaged.

On August 24 the Ministry of Transport announced that, in order to allow further time for compliance, the operation of



One of the last surviving London horse buses (left) being removed for safety from air raids, and (above) in advertising service for Seagers gin shortly before the war

Milestones



Left to right: (1) Probably the oldest English milestone since the Roman occupation. Only a few remain of the 16 erected in 1727 by two members of Trinity Hall, Cambridge, who provided £1,600 to keep the stones in good repair; (2) A stone on the main London-Bath road; (3) Stone at the summit of the famous "Rest and Be Thankful" hill on the Glasgow-Oban road. It was so named by Lord Ancrum when his troops made the road in 1747; (4) Old milestone near Shaftesbury; (5) Roman figures on a stone at Shrewton on Salisbury Plain.



Left to right: (1) An iron milepost in Derbyshire; (2) An unusual shape at Swindon; (3) A post near Tewkesbury, kept in repair by members of a family, one of whom repaired it in 1876; (4) Note the parish name and the distance thereto; (5) A Cambridgeshire design bearing the crossed keys



Left to right: (1) A Hampshire stone using the name Sarum (Salisbury) and a contraction for Southampton; (2) A relic of the Turnpike Trust, located on a minor road at Willett, between Washford-Wiveliscombe, Somerset; (3) A Turnpike Trust milepost near Bristol, on the Bridgewater Road; (4) Ornamentation reminiscent of Beau Nash

Some representative British direction signs before the issue of the Removal of Direction Signs Order on June 18 last. Wartime compass-point signs are all that are now permitted

Road Transport Section

the Order prohibiting the camouflaging of private vehicles so as to resemble Service vehicles had been postponed from August 26 to September 23. It was stated that there was "at present" no intention of requiring owners of vehicles to repaint them in order to render them less conspicuous, but that there was no objection to private owners doing so, provided care was taken to avoid resemblance to Service vehicles.

London Buses and the Blackout

Various new arrangements have been brought into force on the London Transport road vehicles in Central London to meet the increasing difficulty of blackout regulations during the winter evenings. From November 18 dogs are not conveyed on London Transport vehicles during the hours of

35	Walthamstow-London Bridge	Leyton-Liverpool Street	...	---
47	Bromley garage-London Bridge	Bromley Market-London Bridge	...	Catford
77a	Raynes Park-Charing Cross	Clapham Junction-Charing Cross	...	Lewisham
88	Mitcham-Charing Cross	Tooting-Charing Cross	...	Thames House
113	Mill Hill Broadway-Oxford Circus	Mill Hill Broadway-Oxford Circus	...	Balham
133	South Croydon-London Bridge	Streatham station-London Bridge	...	Clapham South
134	Friern Barnet-Victoria	Muswell Hill-Victoria	...	St. Smith Street
159	Thornton Heath-Charing Cross	Streatham station-Charing Cross	...	Hendon Central
				Platts Lane
				Finchley Road
				(Met.)
				Bond Street
				Telford Avenue
				Brixton
				Highgate
				Tottenham Court Road
				Trafalgar Square
				Telford Avenue
				Brixton
				Thames House



Left: Tramcar damaged in a daylight raid on London during the morning peak period. Right: View taken on November 12 of a bus passing over a temporary bridge erected by the Royal Engineers in Central London across a large bomb crater

blackout. From the night of Wednesday, November 20, all Central Area buses (routes numbered 1 to 299) ceased running at varying times between 10 p.m. and 11 p.m., excepting the following routes on which all-night services continue to be provided: 11, 17, and 290 to 299 inclusive. Last buses serving Central London leave out-of-town termini at about 10 p.m., and pass through the in-town area at about 10.30 p.m. On many routes the last bus does not make a full journey to the terminus for the route. Although scheduled journeys thus stop by 11 p.m., special buses are run for late workers, and the Underground train services run up to a later hour. Sleeping quarters are being provided for staff.

Road Spotters for London

By agreement with the drivers and conductors of buses, trolleybuses, and trams, London Transport introduced on October 25 a system of road spotters. The men are eager to continue to drive during air raids and they expressed a wish to have officials on duty at important traffic points to advise them as to whether to proceed or not should they be in any doubt. The suggestion of the Government that men chosen to act as spotters should have the confidence of the workers has been acted upon, and all the spotters have been chosen in consultation and with the approval of the men. To make them easily seen at night the spotters wear black steel helmets painted with white bands.

More Express Buses in London

The experimental introduction on October 24 of express working on ten London bus routes (see page 461 of our November 1 issue) proved so successful that express buses were introduced on the following ten additional routes on Monday, November 4:—

Service	Express Section	Stopping at
21 Sidcup-London Bridge	Eltham-London Bridge	Lewisham
29 Southgate-Trafalgar Square	Wood Green-Trafalgar Square	Finbury Park
		Oxford Street

The original ten express bus routes were varied on November 4 as under:—

Service	Express Section	Stopping at
23 Becontree Heath-Aldgate	Barking-Aldgate	East Ham town hall
25b Becontree Heath-Aldgate	Ilford-Aldgate	Blackwall tunnel
60 Colindale station-Aldwych	Hendon Station	Stratford Broadway
	Aldwych	"Crown," Cricklewood
		Kilburn bridge
		Bond Street
		Duncannon Street
		Cazenove Road
76 Edmonton station-Moorgate	Bruce Grove-Moorgate	

New Bus Routes in London

The London Transport winter schedules were introduced on Central Bus routes on November 20, and four new daily bus services were instituted. The winter schedules will provide the maximum number of buses at the earlier hours in the evening at which people are now returning home from work. The four new daily bus services to be introduced are designed to supplement railway services. Normally buses on these routes will run at wide intervals, but should the running of the railway be interrupted the bus service will be substantially increased.

44—King's Cross and Victoria—Every 7½ min. during peak periods of the day every 10 min. at other times.
186—Wimbledon and Waterloo. Every 15 min.
187—South Harrow and Hammersmith. Every 15 min.
188—Twickenham Junction and Piccadilly Circus. Every 15 min.

This is the first step in the recently-adopted policy that, over some sections of railways leading into London which may be interrupted, new skeleton bus services, with buses travelling at wide intervals, are being established. When such skeleton services are increased rapidly in an emergency, passengers will be aware that such a service is running, and will know where to look for their alternative means of travel.

London Transport Road Fares

When we commented in these columns on July 19 on the then recent decision of the Charges (Railway Control) Con-

sultative Committee to recommend the Minister of Transport to raise the minimum road fares in the London transport area from 1d. to 1½d., which involved the abandonment of the popular 1d. fare, we noted that it would not be possible to make effective the increase in the four-stage 2d. ordinary fare to 2½d. before the first week in September at the earliest. That was because it was necessary to print a complete new series of tickets. To avoid waste of paper, London Transport continued to issue 1d. tickets for 1½d. fares until stocks were exhausted when the other advances were made on July 3. On September 16 last the first of the new 1½d. tickets made their appearance and shortly the last of the old 1d. tickets will have been used. In THE RAILWAY GAZETTE of July 5, at page 17, we gave a table showing the increases proposed in the various fares and the estimated additional revenue which the advances would yield. The increase in the 2d. fares for four stages to 2½d. was calculated to produce £495,000 a year. Since then the Railway Executive Committee, as agent of the Minister of Transport, made proposals for a further general increase in charges, including those of the London Passenger Transport Board. The hearing of the application was opened by the Charges (Railway Control) Consultative Committee on August 26 and concluded on September 11. No further steps have been taken to introduce the four-stage 2½d. fare or a three-stage 2d. fare. The further proposals relating to London Transport road fares were tabulated at page 288 of THE RAILWAY GAZETTE of September 13, but, when the consultative committee's report (which has been accepted by the Minister of Transport) was issued, London was already suffering from intensive air raids, and some traffic disorganisation. Possibly because of this London is largely exempted from the increases, which become effective on December 1. No road transport fares are being increased, excepting on Green Line coaches.

New Tickets for Central Buses in London

In preparation for the issue of new tickets designed to effect a saving of several tons of paper a year, the London Passenger Transport Board gave notice that from October 14 tickets on Central Buses would be punched at the point to which a passenger is entitled to travel instead of the point at which the passenger boarded the bus as heretofore. The old system involved printing most of the fare stages twice. The new tickets are printed on thinner paper and the points are shown only once. The punch marks now indicate the point to which the passenger has paid his fare, a system previously in use on the tram and trolleybus services. This change on the Central Buses will enable the length of most tickets to be shortened from 3½ in. to 2½ in. Tickets of this type were issued for the first time on October 14, but, to avoid waste, existing stocks of tickets are being used, but punched in the new way.

Conductors for London Buses

To staff the 2,000 buses that are being lent to the London Passenger Transport Board by Scottish, provincial, and other undertakings outside the London area, and also for trams and trolleybuses, London Transport has invited applications from men and women to serve as conductors. Male conductors must be aged between 37 and 50 years inclusive; women, between 21 and 40 years inclusive. Successful applicants will be required to undergo a brief period of training, during which men will receive a subsistence allowance of 5s. a day and women 4s. 6d. a day. After training the rates of pay for a 48-hour week are: *Men*: Central Buses £4 5s. including war wage, rising to £4 11s., trams and trolleybuses, £4 2s., including war wage, rising to £4 11s. *Women*: Trams and trolleybuses, £3 13s. 10d., including war wage, rising to £4 11s. Central Buses £3 16s. 6d., rising to £4 11s. For Sunday work the pay is at the rate of time-and-a-quarter. Applicants must be physically fit, their eyesight must be good and they must comply with the following height limits in their shoes: Men, 5 ft. 6 in. to 5 ft. 10 in.; women, 5 ft. 3 in. to 5 ft. 10 in. At the same time it was stated that 500 more women conductors were required for London Transport Country Buses. Women aged between 21 and 35 were invited to apply personally at any of the board's country garages, of which there are 30. The rate of pay is £3 0s. 4d. a week, including war wage, rising to £3 11s. The first

women conductors on Central Buses began work on November 4.

Lifts by Private Motorists

Private motorists living within a 20-mile radius of London have been invited by the Minister of Transport to assist in the movement of their neighbours to their places of business. A scheme has been evolved whereby additional allowances of petrol are made available to motorists who agree to carry a complement of passengers up to town in the morning and back to their home district in the evenings. The allocation of the additional coupons for petrol is being handled by the Automobile Association and the Royal Automobile Club. The supplementary petrol coupons issued are available for a month and are based on the horsepower of the car and the daily mileage to be covered. Cars are supplied with a "Help Your Neighbour" label for fixing to the windscreen, and also a label with "Free Lifts at Your Own Risk." The scheme is not intended unnecessarily to divert passenger traffic from regular transport services. Over 20,000 cars have been registered, the carrying capacity of which is put at some 60,000 persons.

Need for Precaution Against Frost Damage

The Minister of Transport has issued a reminder to all operators of road motor transport that during this winter it will be more than ever necessary to take precautions against damage by frost to the cooling systems of their vehicles. A car which is immobilised by frost damage will almost certainly be unable to be repaired for a considerable time because of the heavy demands which are being made on the engineering trades.

Strategic Roads

On September 24 it was announced in Stockholm that the construction of a 625-mile road between the port of Tromsø, in Northern Norway, and Kirkenes, near the Finnish frontier, would soon be completed, and that the road would be kept open during the winter. A bus service has been begun from the railway terminus at Mosjoen (between Namsos and Narvik) to Kirkenes, according to an announcement of October 3. This establishes land communication between Oslo and Kirkenes; the journey is said to take four days.

An elaborate programme of new works in the Rhône Valley, in the Department of Isère, and at Lyons, was communicated to the press by M. Berthelot, Minister of Communications in the Vichy Government, after his return on October 18 from a tour of inspection through the valley of the Rhône as far as Marseilles. The works include a road to connect Marseilles, through the Marignane tunnel, with Aix and Salon to the north, and a fast motor road from Marseilles to Cassis. It was stated that the effects of inundation in Isère would be repaired, and steps taken to prevent the possibility of their recurrence, while the improvement of the network of French-Alpine roads in Vaucluse, Drome, Isère, Savoy, Aix, and Rhône is planned. The city of Lyons will be made a traffic centre for the south-east of France by tunnelling through the Croix Rouge, and by the construction of two motor roads, one on each side of the Rhône.

The Roumanian General Staff has ordered all motorcar owners to put their cars in repair within six months, according to a statement made in Sofia on October 20. It is added that the Ministry of Communications has just signed a contract with the Italians to build a trunk road from Turnu Severin through Craiova, Bucharest, and Bacau, to Braila and Galatz. The road scheme is important as a plan to link the Black Sea port with the point on the Danube above which the heavier barges cannot navigate. On August 26 it was reported that an Italian company in Roumania had secured a contract for rebuilding 310 miles of the Roumanian highways.

The opening of a new motor road, 20 miles long, between Tirana, the Albanian capital, and Durazzo, the Albanian port on the Adriatic, was announced in Rome by the Official Italian News Agency on August 23.

In connection with co-ordinated measures for the defence of North America, the proposal mooted for many years to construct a Pacific coast highway joining Alaska and the U.S.A. and passing through Canadian territory may be revived. The estimated cost of this joint defence project is \$25,000,000 and the road would have a 24-ft. gravelled surface. Air bases would be built at intervals to serve both north-and-south planes and fighter units.

Thornycroft Nippy Vehicles for the Southern Railway

A BATCH of five Nippy class 5/6-ton articulated 6-wheel vehicles has recently been completed by John I. Thornycroft & Co. Ltd. for the Southern Railway. The wheelbase of the 4-wheel tractor chassis is 8 ft. and each vehicle is fitted with the standard Thornycroft 60 b.h.p. petrol engine. The tyres are 32 in. x 6 in. R.H.S. and the vehicle is equipped with Lockheed-operated Girling brakes with a break-away coupling to connect up with the vacuum servo brakes on the attachment. As will be seen from the illustrations, the cab is fully-enclosed; the bodywork is by B. Walker & Son Ltd. of Watford, and the finish painting of the chassis and cab has been carried out by the Cunard Commercial Body Building Company, Wembley. The turntable coupling, the detachable attachment with hand-operated jockey wheels, and also the platform body have been supplied to the Southern Railway specification by Taskers of Andover Limited. Each complete outfit weighs under 4 tons for taxation purposes.

The Thornycroft Nippy class chassis was described in our columns at the time of its introduction to meet the demand for a well-built small capacity vehicle of robust construction which was also light in weight and capable of a high road



Complete six-wheel articulated unit: the four-wheel tractor is shown separately above

performance. The engine is a 4-cylinder, side-valve petrol engine, developing 30 b.h.p. at 1,000 r.p.m. and (as mentioned above) capable of a maximum of 60 b.h.p. The bore is 98.4 mm. (3 7/8 in.) and the stroke 127 mm. (5 in.). Transmission is by a single plate dry type clutch; four forward speeds and reverse are provided. The overall gear ratios and road speeds are as follow:—

	Top	3rd	2nd	1st
Overall ratio ...	5.86	10.65	19.1	33.4
Road speeds in m.p.h. at 2,400 r.p.m.	40	22	12.25	7

The steering is of the cam and lever type, providing easy control for the driver. The turning circle is approximately 35 ft.

Miscellaneous Notes

One-man Buses for Buenos Aires

It is announced that the Buenos Aires Transport Corporation is negotiating for the purchase of 200 buses—each with accommodation for 28 passengers—and 28 diesel engines, to replace worn-out petrol engines. In the running of the new buses it is proposed to dispense with the services of conductors, the tickets being issued by the drivers, who will have sole control of the vehicles, as in the case of the *colectivos*.

Road & Rail Transport in Northern Ireland

In the Northern Ireland Parliament recently, Mr. J. W. Nixon (Ind. U.) asked the Prime Minister whether he could state when he proposed to give effect or otherwise to the recommendations of the Select Committee appointed by both Houses to inquire into and report on road and rail transport in Northern Ireland. The then Prime Minister (the late Lord Craigavon) replied: The hon. member will recollect that on

the outbreak of hostilities I gave an undertaking that, as far as possible, contentious legislation would not be introduced by the Government during the war. I consider it advisable, therefore, to postpone the formulation of any major proposals in the meantime. It may be found necessary, however, to deal with certain minor matters relating to rail and road transport, in which event proposals will be laid before the House.

Menai Bridge Tolls

The Ministry of Transport announces that tolls for the use of the Menai suspension bridge, connecting Anglesey with the mainland, will be abolished from January 1 next. This decision will mean a saving to motorists of 6d. a day, or, in the case of those who hold season tickets, of 5s. a quarter. Charges have been progressively reduced in recent years and the present scale ranges from 3d. a day for motorcycles and agricultural tractors to 1s. 3d. for buses and coaches. There are also at present charges for horse-drawn vehicles.

GRAIN TRAFFIC ON ARGENTINE RAILWAYS—I

Special installations and vehicles for handling this important traffic between the producing belt and the port of shipment

By H. R. STONES, M.Inst.T.

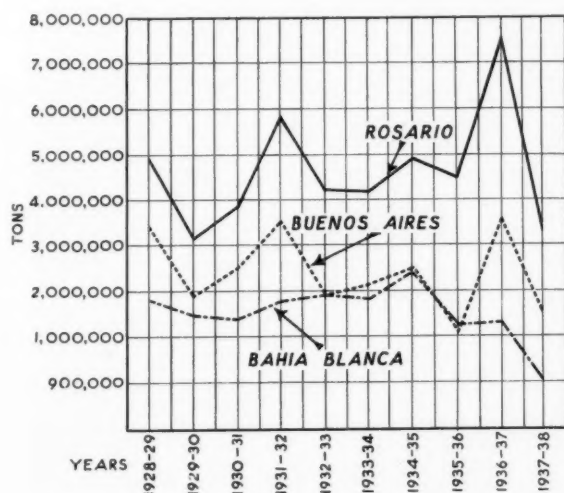
IN THE RAILWAY GAZETTE of August 11, 1933, the writer described the methods of handling cattle and sheep traffic on the railways of the Argentine Republic. It is now intended to deal with the transport of grain, which is the principal commodity of that country, the export tonnage constituting an average of some 70 per cent. of the total production. The latter is derived from two crops, namely the fine cereals, which comprise wheat, linseed, oats, barley and rye; and, later, the maize crop. Being primarily subject to climatic conditions, the production of grain is liable to show important fluctuations from one harvest to another. However, the average annual percentage of classified grain transported by the Argentine railways can be approximated as follows:—

Wheat ..	43 per cent.	Linseed ..	10 per cent.
Maize ..	38 per cent.	Various ..	9 per cent.

The importance of grain traffic on the Argentine railways can be appreciated from the following statistics for the "big four" broad-gauge British-owned railway companies for the year 1934—

Railway	Percentage tonnage of cereals transported	
	To total goods	To total production
Central Argentine	55	29
B.A. Great Southern... ..	54	26
B.A. Western	37	9
B.A. Pacific	34	8

So far as the Argentine railways in general are concerned, grain traffic represents on an average some 33 per cent. of the total goods traffic transported (including livestock). It is interesting to note that in 1936 the total production of grain was approximately 17,689,307 tons, of which some 15,955,854 tons were transported by the railways; this representing 90 per cent. of the total production.



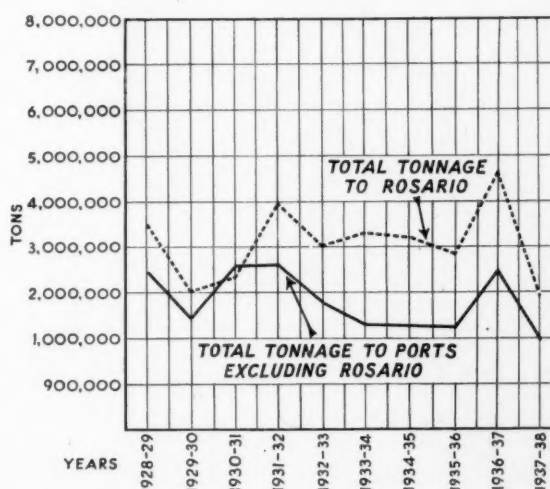
Tonnage of grain handled at the principal ports of the Argentine Republic

The three principal grain-producing provinces of the Argentine Republic are Buenos Aires (118,466 square miles), Santa Fe (52,115 square miles), and Cordoba (64,922 square miles), or a total area of 235,503 square miles. Taking into consideration that the total area occupied by the British Isles is 120,876 square miles, some idea can be formed of the magnitude of the three provinces mentioned, where grain cultivation is on an extensive scale. At many of the larger farms, the areas of wheat and maize comprise thousands of acres.

Grain Belts Close to Ports

Needless to say, the Argentine railways have played an important part in the development of the agricultural industry, and it is interesting to observe that the grain belts are in comparative proximity to the principal ports, which are situated on the rivers Plate and Paraná, and also on the South Atlantic coast. As a result, the transport of grain in the majority of cases is effected over distances not exceeding 450 miles. Long hauls are in the minority, since for wheat the average distance is about 130 miles, and for maize and linseed, in the neighbourhood of 100 miles. These distances form a striking contrast with the transport of grain on the North American continent. According to statistics, the average rail haul of export wheat in Canada is about 750 miles, while in the United States, a large percentage of the wheat crop is conveyed over distances in excess of 500 miles. However, there is every indication that the grain zones in the Argentine Republic are in the process of expansion, and the experience gained in other countries gives an idea of future possibilities.

As to the importance of the Argentine railways as transporters of grain, the premier position is occupied by the Central Argentine Railway, which has access to six river exporting ports, namely, Buenos Aires, Rosario,



Tonnage of grain delivered to the ports served by the Central Argentine Railway



Grain loading wharves showing feeder tubes and chutes for loading bulk and bagged grain at Villa Constitución, Central Argentine Railway



General view of elevator installations, etc., overlooking the River Paraná at Rosario, Central Argentine Railway

Santa Fe, San Nicolas, Villa Constitución, and Cerana. The second place is occupied by the Buenos Ayres Great Southern Railway, which apart from serving the river ports of Buenos Aires and La Plata, has extensive and important interests at the South Atlantic port of Ingeniero White (Bahia Blanca), and to a lesser degree at the seaports of Quequen and Mar del Plata, which have developed considerably since 1929 and 1921 respectively. Most of the remaining Argentine railways, whether broad, standard, or metre gauges, transport export grain either to Buenos Aires, Rosario, Santa Fé, Zarate, Puerto Diamante, San Pedro, Concepción del Uruguay, or Bahia Blanca. Incidentally it can be mentioned at this point that Rosario, apart from being the most important grain export port of the Argentine Republic, ranks next to Montreal as the world's largest grain shipping centre. Being the second city of the republic, with a population of over half a million inhabitants and situated some 300 miles up the River Paraná, Rosario is served by five different railway companies. During the last five years, the average grain exportation from Rosario has been approximately 4,600,000 tons; representing about 40 per cent. of the total export tonnage from the Argentine Republic. Of this tonnage, the Central Argentine Railway has transported an average of 3,260,000 tons, or some 70 per cent. of the total tonnage of grain exported annually from Rosario.

Train transport by rail in the Argentine Republic generally can be said to be effected in two stages only, cartage from the producing point to station, and thence direct by rail to the up-river or sea ports. The former is usually undertaken by the grain merchants or their representatives. The second stage of transport to the point of export is entrusted to the railways, and is the subject of this article. The wheat and linseed harvest begins in November, and finishes in the month of January, while the maize harvest begins in March and ends in July. During these periods, and provided that good crops are available and export demand exists, the railway companies are called upon to deal with the huge problem of providing rapid transport for the principal export grain commodities of the Argentine Republic.

State Schemes for Grain Elevators

Before describing the methods of dealing with the reception and transport of grain by the railways, a few remarks must be made concerning grain elevators.

In the Argentine Republic, the grain elevator system has not been so fully developed as on the North American continent. However, as far back as the year 1900, the Argentine National Congress passed a law (No. 11742), which sanctioned the construction of a series of State-owned grain elevators at railway stations in the grain belts, and also at the principal up-river and sea ports. So far as up-country elevators were concerned, little initiative was taken at the time, and only during the last few years have any attempts been made by the Argentine Government to extend the facilities granted in this direction. Nevertheless great strides are now being made respecting Government port elevators, and it is interesting to observe that in April, 1936, the Argentine Ministry of Agriculture began to call for tenders for the construction of the first chain of State-owned terminal elevators at the ports of Buenos Aires, Rosario, Villa Constitución, Ingeniero White (Bahia Blanca), and Quequen; (the last two points are situated on the South Atlantic coast). This preliminary scheme involves the construction of six elevators, including two installations at Rosario, and represents a total storage capacity of some 431,000 tons. Work has already begun on several of these elevators, and is to be followed in due course by additional plants at other strategic points.

So far as private enterprise is concerned, the railway

companies and the grain exporting firms were primarily responsible for the construction of the early installations at the principal up-river and sea ports. Some of these date back to 1900, when the Central Argentine Railway obtained a concession to construct grain elevators alongside Dock No. 2 in the port of Buenos Aires. In 1908, the Buenos Ayres Great Southern Railway inaugurated two grain elevators on existing wharves at Ingeniero White (Bahia Blanca), and since that date, the same company has carried out extensive additional constructions to increase the storage facilities, including a terminal elevator with a capacity for approximately 81,600 tons. Regarding Rosario, mention should be made of various early elevator installations constructed from about the year 1907 by private firms on the high embankment overlooking the River Paraná on the north side of the city. The land in these cases was facilitated by the Central Argentine Railway, and in accordance with the concessions granted, eventually became the property of that company. Several of these installations are still operating at the present time, although certain modifications have been carried out from time to time in order to meet modern requirements. The situation chosen for these elevators can be considered as ideal for the loading of ocean-going vessels, which are able to lie in close proximity to the elevators, and by virtue of the natural high elevation of the ground on which the latter have been constructed, loading operations are carried out by gravity. Indeed it may be said that the elevated ground forming the south west bank of the River Paraná lent itself admirably to the shipping of "bagged" grain by gravity in chutes, not only in Rosario, but at a number of other up-river ports. This was the primitive system of loading, and is still adopted at some of the smaller ports, which are not equipped with elevator installations. During recent years, additional elevators have been erected at the ports of Rosario and Bahia Blanca, and in this respect, mention should be made of the terminal elevator owned by the Buenos Ayres Great Southern Railway at Ingeniero White (Bahia Blanca) already referred to, and also that owned by the Cooperativa Argentina de Granos at Rosario. These two elevators, with a combined total storage capacity for approximately 161,000 tons, can be considered as the largest actually in operation at the present time by private enterprise in the Argentine Republic.

(To be continued)

Companies Registration Office

The head office of the Registrar of Companies in England is now at Grand Hotel, Llandudno. All documents required to be lodged with the Registrar with a view to the formation of new companies, as well as documents required to be registered or filed with or sent, delivered, or forwarded to the Registrar of Companies in England under the Acts specified below, should now be sent to the above address.

Companies Act, 1929 (and earlier Companies Acts so far as they are in force).

Limited Partnerships Act, 1907.

Newspaper Libel & Registration Act, 1881.

Railway & Canal Traffic Act, 1888.

Assurance Companies Act, 1909.

Railway Companies (Accounts & Returns) Act, 1911.

The office at Bush House, Strand, London, W.C.2, continues to be maintained for the following services only:—

- (1) The inspection of the index to the names of companies.
- (2) The inspection of the files of companies formed before October 18, 1940.
- (3) The preparation of copies of documents and of certificates required under Section 314, Companies Act, 1929.
- (4) The sale of company registration forms.

British Railways and the War—46



Above: Two views of Roedean School classes being held in the L.M.S.R. offices at Keswick station



Left: Lord Woolton (Minister of Food), and Sir George Wilkinson (Lord Mayor of London), joining the shelterers in a London tube station, in cups of tea being served from a 2-gal. can with long spout (see pages 579-580)



Left: Southern Railway dispatch rider conveying train service information to an emergency travel information kiosk during interruption in the telephone service. Middle: One of the Southern Railway "Train Services Interrupted" posters displayed, when necessary, in the same place every morning at suburban stations. Right: The specially-designed Southern Railway poster used when normal services are running

RAILWAY NEWS SECTION

PERSONAL

Mr. J. M. Greathead, M.C., B.A., Chief Civil Engineer, South African Railways & Harbours, has been appointed Assistant General Manager (Technical) in succession to Mr. W. A. J. Day, whose retirement we recorded in our November 8 issue. Mr. Greathead,

received his Commission in the Royal Engineers, serving three years in France and Flanders with the 103rd Field Company which he commanded with the rank of Major throughout the last year of the war. He was invested with the Military Cross by His Majesty the King and was mentioned in dispatches. Shortly after his return to South Africa

Mr. J. D. White, Chief Traffic Manager, South African Railways & Harbours, has been appointed to the newly-created position of Assistant General Manager (Operating). Mr. White went to South Africa from Dundee, Scotland, where he served for a few years at various stations on the Caledonian Railway. He joined the



Colonel J. M. Greathead

Appointed Assistant General Manager (Technical),
South African Railways & Harbours



Mr. J. D. White

Appointed Assistant General Manager (Operating),
South African Railways & Harbours

who was born in South Africa, obtained his degree of Bachelor of Arts at Cambridge in 1907, and obtained honours in the Mechanical Science Tripos. He received training in the works of Kitson & Company of Leeds, and in the Leeds Corporation Waterworks, after which he returned to South Africa and joined the Cape Government Railways as Assistant Engineer on the Lady Grey-Motkop survey and construction, becoming Acting Resident Engineer in 1912. He became First Assistant Engineer in 1913 and was transferred to headquarters. On the outbreak of the 1914-1919 war he was appointed to the Prieska-Kalkfontein construction, and in 1915 was made District Engineer. In the same year he went overseas and

in 1919, he was stationed at Bloemfontein, and in 1922 was appointed Professional Assistant to the Chief Civil Engineer at headquarters, and in 1925 became Resident Engineer on the Addo-Kirkwood Construction. In 1927 he was made Assistant Superintendent (Maintenance), Durban, where, in 1928, he succeeded Mr. G. H. Whitehouse as System Engineer. He was promoted to be Inspecting Engineer at headquarters in 1934, and became Assistant Chief Civil Engineer three years later. As recorded in THE RAILWAY GAZETTE, September 20, at page 307, he recently took up the position of Engineer-in-Chief at Union Defence headquarters, Pretoria, with the rank of Colonel.

Natal Government Railways in 1902 and remained in Natal after Union as a member of the staff of the South African Railways & Harbours. During his service in Natal he occupied positions in various departments. He was specially selected to investigate the possibilities of the use of motorbuses for feeder services, etc. In 1925 he was appointed Road Transport Officer for the Union of South Africa and in 1927 was appointed Manager, Road Motor Services. In 1931 he acted as System Manager at Johannesburg, and in 1932 was promoted to a similar position at Port Elizabeth. In 1936 he became System Manager at Durban and in 1937 was transferred to Johannesburg as Chief Traffic Manager, the appointment

he now relinquishes to take up that of Assistant General Manager (Operating).

The Ministry of Supply announces the appointment of Mr. Harold Elliott, A.M.Inst.T., Commercial Assistant to the General Manager of Pickfords Limited, as Controller of Road Transport in the Department of the Controller General of Transportation. Mr. Harold William Elliott, A.M.Inst.T., was born on November 24, 1905, and educated at Brighton College. On leaving school he spent two years in the works of the Saurer Commercial Vehicle Company at Arbon, Switzer-

land. He joined the staff of Pickfords Limited in January, 1926, and, after working in the Travel Department and various transport departments, was appointed in 1934 to the control of the Dock and Wharf Cartage Section of Hay's Wharf Cartage Co. Ltd., Stoney Lane, Tooley Street, and also of the Bulk Liquid Haulage Department of Pickfords Limited, at Poplar. In August, 1935, Mr. Elliott took charge, in addition, of Pickfords Collection and Delivery Service, preparatory to removing to the new depot at Willow Walk, which was opened on November 4 of the same year. He was appointed Commercial Assistant to the General Manager in December, 1938. From March to September, 1939, he served on the Transport Committee, Food Defence Plans Department of the Board of Trade (the predecessor of the Ministry of Food), and from September to October of the same year he was Transport Officer, London Divisional Transport, Ministry of Food. Mr. Elliott was appointed Advisor to the Rates Division of the Ministry of Transport reporting on Road Costs, from October, 1939, to March, 1940. On the conclusion of this work, he returned to Pickfords Limited as Commercial Assist-

ant to the General Manager. He has just taken up his new appointment as Controller of Road Transport, Department of the Controller General of Transportation, Ministry of Supply. Mr. Elliott is an Associate Member of the Industrial Transport Association; a Member of the Road and Rail Central Conference; a Member of the Standing Joint Committee; and a Member of the Council of the National Conference of Express Carriers.

Mr. David Sheehan, who is in charge of the section of the Traffic Manager's Office, Great Southern Railways, deal-

ing with the distribution of rolling stock for merchandise and livestock traffic, and the arrangement of special trains in connection with the movement of livestock and merchandise traffic, has been appointed District Traffic Superintendent at Limerick in succession to Mr. J. W. Savage. Mr. Sheehan, who was born in August, 1893, was educated at the Christian Brothers' Schools and at St. Coleman's College, Fermoy. He entered the service of the Great Southern & Western Railway as a junior clerk at Fermoy in April, 1911, and was transferred after six months to Mallow as booking clerk. He served three years at Mallow, where his duties gave him experience in general station and traffic work, and was selected for promotion to the District Superintendent's Office, Cork. He was employed for some time as a relief clerk at outside stations and was subsequently rolling stock clerk, where he gained considerable experience in the movement of troops during the last war. In July, 1925, on the amalgamation of the railways in Eire, Mr. Sheehan was transferred to headquarters at Kingsbridge and was attached to the goods rolling stock section. He passed through the various grades in that section and was appointed Clerk

in Charge on September 1, 1937, the position he now relinquishes on his promotion, which will date from December 1.

Mr. J. W. Savage, Traffic Superintendent, Limerick District, Great Southern Railways, is retiring on account of ill-health. Mr. Savage, who is 68 joined the service of the Great Southern & Western Railway as a Clerk at Maryborough in 1889, and was promoted stationmaster in 1894. During the war of 1914-1919 Mr. Savage saw service in England, Italy, and Ireland. In 1925 he was appointed District Super-



Mr. Harold W. Elliott

Appointed Controller of Road Transport, Department of the Controller General of Transportation, Ministry of Supply



Mr. David Sheehan

Appointed District Traffic Superintendent, Great Southern Railways, Limerick



Mr. J. W. Savage

District Traffic Superintendent, Great Southern Railways, Limerick, 1929-1940

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intendant at Mallow, and in 1929 became District Traffic Superintendent, Limerick.

RAILWAY COMPANIES' ASSOCIATION APPOINTMENTS

Mr. W. M. Perts, Southern Railway, has been elected Chairman of the Coaching Traffic Superintendents' Conference, Mr. T. W. Royle, London Midland & Scottish Railway, is to be Chairman of the Operating Superintendents' Conference, and Mr. T. E. Argile, London Midland & Scottish Railway, Chairman of the Goods Managers' Conference at the Railway Clearing House for the year 1941.

We regret to record the death, on September 16, of Mr. Bradford Boardman, former Managing Editor of the *Railroad Gazette*, predecessor of our American contemporary the *Railway Age*. He was succeeded as Managing Editor in 1912 by Mr. R. V. Wright, and then joined the staff of the Metropolitan Museum of Art, New York, of which he was Executive Officer at the time of his death. Mr. Boardman, who was 57 years of age, was the son of Mr. W. H. Boardman, at one time

President and Editor of the *Railroad Gazette*.

Mr. Michael Dewar, Chairman of British Timken Limited, was nominated a Sheriff for the County of Hertfordshire at the recent annual ceremonies. Mr. Dewar's seat is Stagenhoe Park, Hitchin. He is at present in the United States on a mission for the British Government.

A new board has been appointed to the Roumanian State Railways to bring them in line with the changed

political and military situation in that country. It is composed as follows: Victor Stoica (President), N. Miclescu (Vice-President), T. Sfintescu, J. Cantunari, A. Georgescu, (Engineers), Professors N. Dainala and J. Cristescu, Dr. A. Bacui, Professors N. Corodeanu and G. B. Boieru (the last three lawyers), and General A. Ioanitiu (of the General Staff of the Roumanian Army).

The death on November 19 at the age of 63 is announced of Lord Terrington, who succeeded his father (sometime

a Railway & Canal Commissioner) as second baron in 1921. Lord Terrington was from 1899 to 1902 Assistant Solicitor to the Great Northern Railway.

INDIAN RAILWAY STAFF CHANGES

Mr. J. Humphries, Officiating Director of Mechanical Engineering, Railway Board, has been appointed Director, Mechanical Engineering, in the Department of Supply, as from July 16, he having changed places with Mr. L. N. Flatt, V.D., M.Inst.C.E., M.I.Mech.E., M.I.Loco.E., M.I.E. (Ind.). Mr. Flatt's appointment has been announced in our issue of October 11 (page 389).

STAFF AND LABOUR MATTERS

Railway Wages

The executive committee of the three railway trade unions—the National Union of Railwaymen, the Associated Society of Locomotive Engineers & Firemen, and the Railway Clerks' Association—met in London on November 20 to consider making a further claim for an increase in wages, and they have now submitted to the railway companies a claim for an all-round increase of 10s. a week in the existing war bonus. The actual claims are for 10s. a week for the wages grades and £26 a year for the salaried grades. The present war bonus payable to the staff included in the claim is £18 a year for the adult salaried grades and 7s. a week for the adult wages grades, with proportionate amounts for juniors and females. The first war bonus payable to railway workers operated from January 1, the amounts being £10 a year for the adult salaried grades and 4s. a week for the adult wages grades, with proportionate increases for females and juniors, and these amounts were increased on June 3 by £8 for the salaried grades and 3s. a week for the wages grades.

Building Trade Wages

By a decision of the National Joint Industrial Council for the Building Industry, workers in the industry are to have their wages increased by a half-penny an hour as from December 1. This anticipates the increase which, under the cost of living sliding scale arrangements for the industry, would become due next February if the present cost of living index figure continues at its present level and will be merged in that increase. The last review of wages under the sliding scale arrangements took place last September.

Engineering and Shipbuilding Wages

At a meeting held in York on November 20, the Confederation of Engineering & Shipbuilding Trade Unions decided to approach the employers in the engineering and the shipbuilding industries with a view to securing the setting up of a special tribunal to hear the wages claims which

have been submitted on behalf of the workers in the two industries. The confederation stated that, if the suggestion is accepted in principle, then the details would be settled by agreement, but it can be taken for granted that any such tribunal would either be composed of men not associated with the industries or that the Chairman would have this independence of outlook. The principal reason for the confederation's proposal is a desire to expedite a hearing of their claims which, if they were referred to the National Arbitration Tribunal, would not get a hearing for a long time on account of the number of cases still awaiting a hearing by that tribunal. There have been strong protests by the members of the unions who are dissatisfied with the advance they have secured during the war when compared with workers in industries in which wages are regulated by the cost of living. Both the engineering and shipbuilding employers have opposed the claims with arguments based on national interest and to this opposition the confederation replies, in effect, that if there is to be a national wages policy and any plan of stabilisation, there is still a lot of leeway in wage rates for the men in the engineering and shipbuilding industries to make up.

Personal Injuries (Civilians) Scheme

The adequacy of the allowances payable under this scheme was the subject on which a deputation from the Trades Union Congress saw the Minister of Pensions on November 21. The deputation, led by Mr. George Gibson, Chairman of the T.U.C. pointed out that the present scheme gave the industrial worker a raw deal and compensation for injury or death by enemy action was in many ways much inferior to the provisions of the Workmen's Compensation Acts. The scheme, it was pointed out, was introduced at the beginning of the war, when it was assumed that everyone would go to shelter when the air raid warning sounded, but the great majority of workpeople now carried on, as the Government desired, at least until danger was imminent. In the case of

many—railway workers, for example—work continues without break throughout air raids. Risks run were, therefore, very different from those contemplated at the outset, and different from those to which the ordinary civilian was subjected in his private life. Sir Walter Womersley, Minister of Pensions, told the deputation that the Cabinet is reviewing the scheme and a decision will be announced at the earliest possible moment. Mr. Ernest Bevin, Minister of Labour, and Sir Kingsley Wood, Chancellor of the Exchequer, attended the discussions.

Christmas and New Year Holidays

Mr. Bevin, Minister of Labour & National Service, told the Joint Advisory Council (representing the British Employers' Confederation and the Trades Union Congress General Council) on November 20, of the Government's decision that war work must suffer as little interruption as possible at Christmas time. It is hoped that work will not cease except on Christmas Day or New Year's Day. New Year's Day is a usual holiday in Scotland and some places in the North of England, and where that day is a holiday it should be taken as the alternative to Christmas Day. For industry on war work Boxing Day is not to be a holiday, but it is understood that the wage rates for holiday work will be paid.

Road Haulage Wages

It was announced on November 15 that the Road Haulage Central Wages Board has unanimously agreed to request the Minister of Labour to make an Order amending the Statutory remuneration of road haulage workers, to include increases of 3s. 6d. a week in the wages of adult regular workers, and of 1s. 9d. for juniors. Increases are also involved in the pay of those other than regular workers, and in overtime rates and holiday pay. The amendments will not come into force unless and until the Minister of Labour has made an Order confirming them. An official statement said that the board attached considerable importance and urgency to the whole question of the availability of labour, particularly drivers and fitters, in the goods road transport industry, and had remitted the matter to its emergency committee for detailed examination.

TRANSPORT SERVICES AND THE WAR—66

Notifying trains of air raid warnings—Withdrawal of travelling post offices—Easier travel to and from Ireland—S.R. emergency travel information—More about London tube station shelters—Delays in unloading coal wagons at Manchester

The system introduced at the beginning of the war for notifying drivers of trains when an air raid warning is sounded has recently been the subject of review. On all lines but the Southern Railway, the drivers, as soon as they were advised of a warning by the signalmen, had to stop and place one headlight in the middle of the locomotive buffer beam, removing the other headlights, as an indication that they had been warned. When the "raiders passed" message was received the trains were once more stopped and the headlights restored to normal. On the Southern Railway, where head-codes are used, not to describe trains but routes, the stop for re-arrangement of the headlights was not required, and as a consequence delay to the trains was considerably less. Distant signals were kept in the warning position during periods of air raid "alerts." As we recorded in our issue of November 15, the stop to change headlamps is no longer required, nor are distant signals maintained in the warning position during "alerts."

Travelling Post Offices Withdrawn

Although lineside apparatus for the exchange of mail bags at speed was put out of use at the outbreak of war, vehicles continued to run as travelling sorting offices until September 22 last, with the exception of the gap between December 17 and December 27, 1939, when sorting carriages were withdrawn during the Christmas pressure period (as reported at page 99 of our January 19, 1940, issue). Attention to this withdrawal of travelling sorting offices was directed recently by a Question in the House of Commons, to which the reply, published in our columns last week, indicated that under present conditions most of the usefulness of sorting work on trains had been lost by the impossibility of maintaining that regularity of running which is essential for the satisfactory working of the closely-linked network of cross-

country railway services which comprise the postal facilities of the travelling post office. Stowage vans continue to run on all mail trains, however, and the famous up and down Postal between London and Aberdeen is still maintained as a train of stowage vans.

15,000 G.W.R. Home Guards

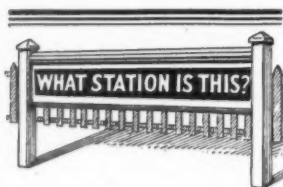
Great Western Railway Home Guards, whose principal duty is to guard and patrol vital points such as important bridges, viaducts, and signal boxes, now number nearly 15,000. They were recruited from the uniformed and clerical staffs at some 200 enrolling stations, and include veterans who have served throughout the war of 1914-1919 as well as young men acquiring the rudiments of military training prior to their call-up. Old coaches, waiting rooms, and cabins have been allocated as guard, mess, and rest rooms by the company, which also provides lighting and heating. Although detailed to guard railway property, G.W.R. units maintain close co-operation with the military authorities and with the A.R.P. services, and in recent weeks they have helped to shoot down parachute flares dropped by enemy planes and in fighting incendiary bombs.

L.M.S.R. Timetable Changes

The L.M.S.R. announces certain changes in its suburban services to meet the convenience of those leaving their London offices for the suburbs at an earlier hour than normal during the darkest winter months. Additional trains will leave Euston at 3.20 p.m. for Bletchley, calling at Harrow, Watford, and all stations beyond, 3.50 p.m. for Tring (first stop Bushey & Oxhey), and at 4.5 p.m. for Watford (first stop Wembley); also from Broad Street at 3.50 p.m. for Tring (first stop Harrow, then Bushey and all stations), and at 4.18 p.m. for Tring calling at Harrow and all stations beyond. The 5.54 p.m. from Euston to Watford, and the 4.51 and 6.6 p.m. from Broad Street to Tring will be cancelled. Similarly on the Midland Division there will be additional trains from St. Pancras at 3.45 p.m. (Kentish Town, Radlett, and St. Albans), and 4.12 p.m. (Kentish Town, St. Albans, Harpenden, and Luton); the 3.52 p.m. all stations to St. Albans will leave at 4.20 p.m., and the 5.5 p.m. to Luton will call additionally at Kentish Town and Radlett; while the 5.35 p.m. to Luton, the 6.5 p.m. to St. Albans, and the 6.25 p.m. to Bedford will be discontinued. All the foregoing arrangements apply from Monday to Friday inclusive each week. Among main line changes the 8.15 a.m. from Liverpool to Euston, which from October 28 began to call additionally at Stafford and Watford, will now call also at Rugby, and be due in Euston at 12.54 p.m.

Travel between Great Britain and Ireland

In June last the British Government found it necessary, in the interests of national security, to impose new and severe restrictions on travel between Great Britain, on the one hand, and Northern Ireland and Eire, on the other. The effect of these restrictions has been that, whilst at all times persons have been free to travel to their homes in either country for the purpose of permanent residence, visits for holiday purposes or for private reasons by persons proceeding to their homes have, with certain exceptions, been prohibited. These restrictions have undoubtedly imposed considerable hardship on a large number of British subjects, particularly those whose occupation is in one country and whose home is in the other. The Government has now reviewed the whole question of travel between Great Britain and Ireland and has relaxed the restrictions so as to permit persons in Great Britain to make a temporary visit, not more frequently than one in every six months, to their



Station names are now in small letters. If you can't see the name and can't hear the porter's voice—ask another traveller.

It is dangerous to raise the blind and make the train a target for bombers. If you know where you are—by local signs and sounds—please tell others in your carriage.

WE'LL BEAT THE BLITZKRIEG
BY HELPING ONE ANOTHER

BRITISH RAILWAYS

TO RAILWAY TRAVELLERS

"I know and deplore all the inconveniences caused to the ordinary traveller. What also worries me is that I am not allowed to tell him why. It may be an unexploded bomb here, or signalling put out of gear there, but I cannot say so...."

"Passengers are sometimes impatient when their express slows down to 25 miles per hour. A few hours before there may have been no line there at all, only a crater."

"It is an untold story of relentless war against transport, falling bombs against turning wheels, and of enduring bravery against an unscrupulous foe."

The Rt. Hon. J. T. C. Moore-Brabazon,
Minister of Transport, Nov. 10th, 1940.

BRITISH RAILWAYS

Two recent press advertisements of the British railways

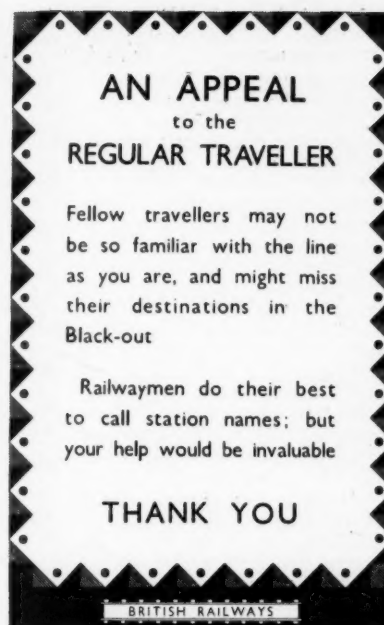
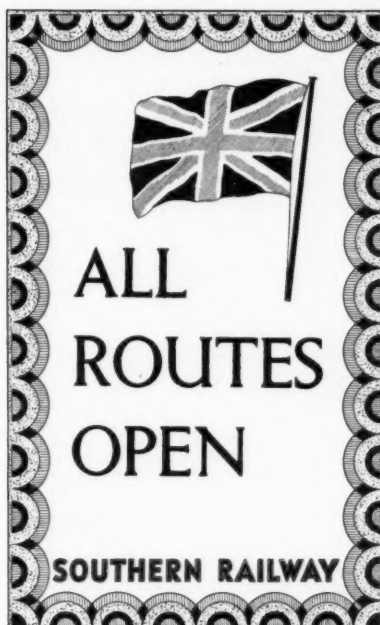
SOUTHERN RAILWAY

TRAIN SERVICES INTERRUPTED



Some delay may be caused in giving accurate information about your services or alternative routes, owing to telephonic communication being broken through enemy action.

Everything possible will be done to facilitate your journey. In the meantime your kind indulgence is requested.



*Left: Station poster with space for brief details of interrupted train services.
Right: Specially-designed Southern Railway poster replacing "Train Services Interrupted" when normal services are running*

British railway poster telling the regular traveller how he can help his fellows during the blackout

home, whether in Northern Ireland or in Eire, and similarly to allow persons in Northern Ireland or in Eire to travel once in every six months to their home in Great Britain. This concession came into operation on November 21. In every case it is necessary for an intending traveller to obtain a permit from the appropriate authority in Great Britain or in Northern Ireland or in Eire, as the case may be. Members of the public are advised to submit their applications at least 14 days before the intending date of departure. Special machinery is being set up to enable the wives of officers and men of the Mercantile Marine to visit their husbands at shorter notice. Travellers have to comply with the usual formalities, such as those relating to the export of currency and censorship.

S.R. Emergency Travel Information Kiosks

By reason of its many suburban stations and widespread local electric system, the Southern Railway is particularly affected by the scheme to establish information booths to help the travelling public, reference to which has already been made in these columns. At present the Southern Railway has in use enquiry kiosks at 21 stations in the London area, where the enquiry clerks in charge are provided with the latest available details of alterations in services, and diversions caused by enemy action, and are prepared to advise passengers of the best way to and from their destinations. The kiosks are furnished with the timetables of all the main-line railways, and are advised early every morning of any changes. It has been found that, apart from ordinary suburban enquiries, these kiosks are asked to furnish information about cross-country journeys, as a passenger leaving a suburb in the south and travelling to the north obviously desires to know which way to cross London, and to what northern terminus. So far as concerns Southern Railway services, the kiosks are kept informed of particulars of all train alterations, and are equipped with special posters for announcing services and alternative routes. The kiosks are supplied with the latest information by telephone from various control offices, and, to overcome the difficulty when some interruption has taken place in the telephone service, motor cyclists are available to convey the necessary information. An illustration of one of these dispatch riders is reproduced at page 574. The following is the list of Southern Railway stations at which kiosks are provided: Wimbledon,

Surbiton, and East Croydon (opened on October 25); Sutton, Bromley South, Woolwich Arsenal, and Hither Green (opened on October 28); Dartford, Lewisham Junction, Beckenham Junction, Purley, Streatham Hill, Epsom, and Richmond (opened on November 4); Waterloo (opened on November 11); London Bridge, Victoria, Charing Cross, and Cannon Street (opened on November 13); and Holborn and Blackfriars (opened on November 15).

In addition to these arrangements, greater use is to be made of loud speakers in giving advice to waiting travellers and other forms of helpful information, rather than confine the announcements merely to train departures, and additional loud speakers are being provided where necessary.

At all the Southern Railway suburban stations, arrangements have been made for a special poster to be displayed in the same place every morning giving a summary of any interruption in the train services and brief details of alternative routes. When normal services are running, a specially-designed poster to this effect (reproduced herewith) is displayed. Blackboards are also being supplied to London and suburban stations in greater numbers than heretofore, so that more detailed information may be given to the public with regard to suburban services.

Refreshment Equipment in Tube Stations

The task of providing refreshments for the 150,000 persons who shelter every night in tube railway stations in London has been undertaken by the London Passenger Transport Board at the request of, and as agent of, the Ministry of Food—a fact which we recorded briefly in our issue of November 8. As we then pointed out, it would be difficult to find a place less suited to the service of refreshments than a tube station platform, for there is no supply of running water, no drainage, and, for reasons of safety, a naked flame may not be used. Cooking cannot be undertaken because there are no flues to take away fumes, and service is difficult as it is undesirable to establish canteens, which would result in shelterers surging backwards and forwards along the platforms and corridors to the serious interruption of traffic. Accordingly, food and drink must be brought to the shelterers at their places on the platforms and in the passages.

A supply of water and electric power is being provided at 160 feeding points (platform space reserved for apparatus

and service) on the 80 tube stations at which shelterers assemble. At every point three 10-gal. electrically-heated boilers are being installed in which to make tea, cocoa, and hot soup, and some £15,000 of the grant of £20,000 recently made by the Lord Mayor of London from his Air Raid Distress Fund to the Minister of Food is being devoted to buying such equipment. Shelterers are required to provide their own cups or mugs, and the charge for tea or cocoa is 1d. a cup. Milk is provided to children at 1½d. a mug, and babies' bottles are warmed. Food will be delivered to six railway depots and packed in fibre, dust-proof containers. These containers will be loaded into special four-car tube trains, the first of which went into service on November 6. These tube refreshment specials will set out every day at 1 p.m., and will stop only 30 sec. at a station for unloading the containers and collecting the empties.

At every feeding point there is a staff of six women chosen for their interest in welfare work. They wear green frocks, rubber aprons, red kerchiefs on their heads, and red armbands lettered "T.R." (Tube Refreshments). Those who carry the baskets of food wear miniature sandwich boards bearing the bill of fare. Others bring the drink in two-gal. cans with long spouts. Duty begins at 5.30 p.m.; refreshments are served between 7 and 9 o'clock; and by 10 p.m. the members of the staff retire to their pneumatic mattresses. Activities are resumed at 5 a.m.; refreshments are served between 5.30 and 7 a.m.; and duty ends at 8 o'clock. The welfare workers are paid 6s. a night and are given food.

As we have previously recorded, the new organisation was begun with an experiment on a small scale at Holland Park station on the night of October 29. The arrangements were extended to Shepherds Bush station on November 2, and other Central Line stations have been brought into the scheme as follow: Notting Hill Gate, Queens Road, Lancaster Gate, Marble Arch, Bond Street, and Chancery Lane (November 9); and St. Pauls (November 10).

Subsequently the scheme was extended to the Northern Line, and canteens have been opened as follow: Hampstead, Belsize Park, Chalk Farm, Highgate, Archway, Tufnell Park, Kentish Town, and Camden Town (November 16); London Bridge, Borough, Elephant & Castle, and Kennington (November 24).

On the Piccadilly Line, refreshment equipment has been brought into service at Earls Court, Gloucester Road, South Kensington, Knightsbridge, Hyde Park Corner, Green Park, Covent Garden, and Russell Square (November 21); Holborn (November 22); Southgate, Bounds Green, Wood Green, Turnpike Lane, Manor House, Arsenal, and Caledonian Road (November 27).

On the Bakerloo Line two stations are at present served, namely, Waterloo and Lambeth North (November 26).

There are thus now 39 tube stations at which refreshments are provided to shelterers, and the full scheme involves the equipment of a further 32, bringing the total to 71.

Shelter in Underground Stations

Season Tickets.—The issue of season tickets to shelterers in London tube stations presents more difficulties than the issue of season tickets to other shelterers. Many shelterers in Underground stations travel long distances, and not always to the same stations. More than half the shelterers at some stations come from other districts and there is no intention of excluding them in favour of local residents. The London Passenger Transport Board and the local authorities are anxious to overcome the difficulties so that there may be no need for shelterers to queue for places and a scheme is being tried by the Royal Borough of Kensington and the Borough of Paddington. Places on the platforms at Notting Hill Gate (Borough of Kensington) and Queens Road and Lancaster Gate (Borough of Paddington) are numbered and season tickets issued by marshals and wardens appointed by the Borough Councils to regular shelterers known to the wardens and the station staff.

Bunks.—Experiments are being made with two types of bunk, namely, the standard three-tier bunk designed and supplied by the Ministry of Home Security, and another three-tier bunk which, when not in use, may be folded flat against the station wall. The number of bunks fitted depends upon the space available at a station and upon the para-

mount need of keeping passageway for passengers. It is doubtful whether bunks can be provided for all shelterers, but London Transport intends, whilst safeguarding the interest of the passengers, to place in position as many bunks as may be possible without reducing the space available for shelter.

Medical Attention.—As many as 5,000 persons take shelter in some Underground stations and the Ministry of Health is anxious that adequate medical attention should be available to them. The local authorities are providing nurses at every station and the Borough of Kensington, which has appointed a woman doctor to supervise the medical care of shelterers in the borough, is co-operating with London Transport in establishing at Notting Hill Gate station a model medical centre. It is hoped that this centre will simplify the task of other local authorities by providing a basis for standardising methods and equipment.

The Shelter at Highgate Station

The list of Northern Line stations given above, at which refreshment equipment is in use, includes the tube station at Highgate which has not yet been opened to public traffic. It will be recalled that when the Northern Line was projected from the present Archway (formerly called Highgate) station to East Finchley—on July 9, 1939—the tube platforms at the new Highgate (under the L.N.E.R. Highgate station) were virtually complete, but were not able to be brought into service as the connecting escalator shafts, etc., were not finished. For some time past these tube platforms have been used as an air raid shelter, and shelterers travel by train from other stations (specially stopped there) in order to obtain access.

The Disused South Kentish Town Station

We understand that South Kentish Town tube station, which has been out of service for railway traffic since June 5, 1924, is being prepared for use as a public air raid shelter, and should be available in the very near future.

Delays in Unloading Coal Wagons at Manchester

As a result of complaints by the Manchester Corporation to the effect that, despite recent urgent representations to the Mines Department of the Board of Trade, there was still virtually no reserve stock of winter coal either at the Government storage sites at Manchester or in the yards of coal factors and merchants, Mr. E. J. H. Lemon, Vice-President, Traffic and Operating, of the L.M.S.R., and Mr. J. E. Kitching, Mineral Manager of the L.N.E.R., met a number of Manchester press representatives on November 20. As was recorded in THE RAILWAY GAZETTE last week, suggestions had been made that the lack of coal in the Manchester area arose from deficiencies of railway transport. A statement by Sir Ralph Wedgwood, Chairman of the Railway Executive Committee, repudiating this allegation was also reported in our columns. Mr. Lemon emphasised that the shortage of coal was not due to failure on the part of the railways to transport fuel to Manchester and he declared that the trouble lay partly in the fact that only a proportion of the coal moved in wagons to Manchester had been discharged. There was no doubt, said Mr. Lemon, that the railways could deliver the coal, and in fact had delivered it, but it was essential that it should be unloaded more quickly. There might be reasons for delays in unloading, but he had no hesitation in saying, on behalf of the railways, that it was wagons they wanted, and that by unloading quickly those receiving the coal would be helping in the national effort. It was not for him to say whether heavy demurrage charges strictly enforced should be the means adopted to this end or whether it was to be found in making delay a penal offence, but he added that the latter was the measure adopted by the Germans. The railways did not want to collect demurrage charges—they wanted the wagons freed for operation.

Dealing with the complaint of supplies to the Bradford Road Gas Works, Mr. Lemon showed that between September 20 and October 25, the period in respect of which the complaint had been lodged, the minimum number of wagons waiting in the sidings to be sent into the gas works on any

one day was 20; the maximum number was 279 and the average was 88. Of a total of 2,838 wagons available for unloading only 1,611 had been discharged. It had been publicly stated by responsible officials that failure to increase storage of coal at this location had been due to the inability of the L.M.S.R. to improve transport requirements, but if more coal had been transported to this site it would only have added to the large number of wagons already standing idle waiting to be unloaded. Mr. Lemon also pointed out that the average weekly winter consumption of coal in Manchester had been stated in the House of Commons to be 30,000 tons. Average weekly supplies made available by the railways were 84,120 tons; average weekly supplies unloaded had amounted to only 18,144 tons.

Mr. Lemon was also able to show that on one railway system alone 394,359,173 loaded wagon miles had been operating during the first 43 weeks of this year; this figure exceeded the complete total for last year by 82,190,308 or 26.33 per cent. By the end of the year it was estimated that the total of 407,615,932 loaded wagon miles for 1929, which was the peak year since 1918, would have been exceeded.

Armoured Trains on the Italian Coast

The Italian newspaper *Lavoro Fascista* reports that armoured trains have been placed at strategic points on the Italian coast to protect the shores. It is stated that the gun fire from these trains is directed by special surface craft.

The Franco-Swiss Railway Service

Railway passenger traffic between Geneva and the French frontier station of Bellegarde, which has been interrupted since the arrival of German troops in the district last June, is stated to have been resumed on November 15. Three trains are said to have run daily in each direction. This traffic is stated to have been suspended suddenly on November 26, however, on the orders of the German military commander in the Bellegarde region.

Transport in Holland and Belgium

In order to relieve congestion on the railways of Holland and Belgium which have not yet been completely restored, efforts to organise water transport continue under pressure by the German occupying forces. The inland water route between Amsterdam, Rotterdam, and Liège has been open for regular transport from the middle of October. A central transport board has been established by the Dutch State and private coal mines in South Limburg to improve the distribution of coal, which is seriously affected by shortage of railway wagons and canal barges. As reported in THE RAILWAY GAZETTE of November 15, a central shipping organisation is operating in Belgium, and this body has now established divisional centres in Antwerp, Brussels, Ghent, Mons, Charleroi, Liège, and Hasselt; these centres have sole control over the allocation of barges for all freight offered. Many new road transport companies and individual carriers have been licensed for short-distance transport.

Exodus from Lorraine

It was reported on November 14 that the Germans had begun deporting the French population of Lorraine at the rate of five trainloads a day, without consulting the Vichy Government. According to an official statement issued in Vichy, the French inhabitants of Lorraine have been offered the choice of deportation to Poland, or to "unoccupied" France. So far as is known, the expulsion affects all French nationals who entered Lorraine after 1918, and the area is stated to comprise the pre-Versailles German province of Lothringen which includes such towns as Metz, Thionville, Sarreguemines, and Sarrebourg. Shortly afterwards it was stated that some 100,000 French-speaking persons had been expelled from Lorraine, and that the Germans had begun a similar deportation of French-speaking Alsatians. On November 21 it was stated that four trainloads of French-speaking persons from Lorraine had just arrived at Toulouse, and these were possibly the last for the time being, as it was announced officially later the same day by Gauleiter Bürckel that the eviction of Lorrainers would be "interrupted" immediately.

Capacity of Victorian Lines Increased to Handle War Traffic

With the prospect of having to handle heavy military traffic over its more important lines—mainly single track—the Victorian Railways recently completed new crossing loops and extended the sidings at other stations for use for crossing purposes. At each loop or station, a home signal is provided in each direction, detected through the points, which are either plunger or staff locked, and a location board, forming a fixed distant signal. Where the points are secured by staff locking, a master key is provided to release them for crossing purposes. The lines concerned are operated by electric staff. To work the new sections formed by the opening of a temporary crossing place, provision is made to convert the electric staff section into two short train staff and ticket sections. Where the section is operated by large electric staff, a divided staff is provided in the instrument at the staff station on the "up" side of the crossing place. Upon its withdrawal, in the same manner as an ordinary staff, the divided staff is separated into two portions, forming the train staffs for the short sections. Ticket boxes are provided at the three stations, opened by the train staff when the book of tickets is required. The train staff for the further section has of course to be transferred. This is done by the train which opens the temporary crossing place. When the station is to be closed, the two portions are worked to the originating station (the further portion being again transferred), the complete staff is reassembled, and inserted in the instrument, normal electric staff working being then resumed. On the remaining sections, operated by miniature electric staff, a different arrangement is necessary. At the station on the "up" side of the temporary crossing place, what is termed a "staff exchange box" is provided. In each of the two outside apertures the train staffs for the two short sections are normally secured, their release being obtained by the insertion and locking of the miniature electric staff for the long section in the central aperture. Staff ticket boxes are provided, the transferring of the train staff for the further section being arranged as with the divided staff. Upon inserting and locking the two train staffs in the outside apertures of the exchange box, the miniature electric staff is released and normal working resumed.

Although the divided staff has been in use at different places in Victoria for more than 25 years, the "staff exchange box" represents the first attempt to interlock train staffs for short section working with the miniature electric staff for the normal section, the opening and closing of temporary crossing stations on these sections having previously been arranged by a block and signal inspector.

War Efforts on Indian Railways

Apart from the transport of military traffic, railwaymen throughout India have responded to the call for war funds. All ranks have made donations and contributions. The Bengal-Nagpur Railway organised a garden fête in March, the proceeds of which, amounting to about Rs. 20,000 (£1,500), went to the East India War Fund.

A great effort is also being made to assist other funds, notably the Red Cross, and the ladies of the B.B. & C.I.R. have been busy making comforts for the troops. On the South Indian Railway, dramatic performances have been staged at Trichinopoly and other large stations to raise war funds.

A feature of the war efforts of the Nizam's State Railway is the air training that is being provided for the staff in the Air Transport Department of the railway, to constitute the nucleus of a flight unit. Further, mechanic-drivers are being trained by the Road Transport Section for military service. Road service units have also been offered to the Government of India, if required for the relief of pressure on the Indian railways.

All railway administrations are helping to give the widest publicity to the appeal to the public for contributions to the War Fund, War Loans, and War Savings Certificates, by the exhibition of posters at stations, and arrangements for the distribution of leaflets and pamphlets issued from time to time. Many railway officers who have volunteered for war service are awaiting orders to join up.

Notes and News

Railway Agreement (Powers) Bill.

—In the House of Commons, on November 26, the Minister of Transport introduced this measure. It enables the railways to make agreements with the Minister and with one another arising out of, and in connection with, the control of the railways exercised by the Government during the war.

Railway Accident in Norway.—

A passenger and a goods train collided at Malvik, 10 miles east of Trondheim, on November 19, as a result of which 22 persons are reported to have been killed and many injured. The British United Press report, which gives this news, says that the accident has been attributed to sabotage.

British Continental Airways Trust Limited.—

This undertaking has been registered as a public company with a capital of £1,600 in 384,000 shares 1d. each. The objects are to acquire and hold shares in Rollason Aircraft Services and securities of any other company, Government, or authority, and to carry on business as financiers.

Control of Coal-Tar Products.—

The Secretary for Mines, acting on the recommendation of the Association of Tar Distillers, has decided to institute Government control of the primary products of tar distillation, and has appointed Major T. Knowles, Vice-Chairman of Monsanto Chemicals, Limited, to be Controller.

Great Western of Brazil Moratorium.—

Meetings of holders of the 4 per cent. debentures and of the 6 per cent. debenture stockholders of the Great Western of Brazil Railway Co. Ltd. have been convened for December 4 to consider a scheme which proposes to extend for three years the provisions of the scheme of arrangement sanctioned in July, 1938.

Great Indian Peninsula Railway Annuities.—Notice is given that on November 1, 1940, a total sum of £23,072,491 3s. 5d. was invested for the

purpose of providing a sinking fund in respect of Great Indian Peninsula Railway Class "B" Annuities.

Hard Metal Tools.—Hard Metal Tools Limited has been registered as a private company with a nominal capital of £91,600, states *Jordan's Register*. Three of the first directors are to be appointed by A. C. Wickman Limited and two by Kleinwort Sons & Co.

Registration of Business Names.—

The office of the Registrar of Business Names is now at Grand Hotel, Llandudno. All applications for registration of names and of changes of names and for particulars or copies of existing registrations should be sent to that address. The office at Cursitor House, Chancery Lane, London, W.C.2, is closed.

Road Accidents in October.—

The Ministry of Transport return of the number of persons reported to have died in Great Britain during October, 1940, as a result of road accidents shows that fatalities were 1,012, compared with 920 in October, 1939. Of these 501 occurred during hours of darkness, against 565 in October last year. Adult pedestrian deaths were 425 against 505.

Railway Freight Rebates.—

The Railway Rates Tribunal sat on November 26 for the purpose of reviewing the operation of the Railway Freight Rebates Scheme for the year ended September 30, 1940. After hearing evidence the tribunal announced the following rebates: Agricultural traffic, 14½ per cent. of the carriage charges or tolls; exported coal class traffic, 1½d. a ton and 75 per cent. of the remainder of the carriage charges (toll traffic—80 per cent. of the tolls). The alterations come into operation on December 1.

Central Argentine Railway Moratorium.—Mr. Justice Simonds, in the Chancery Division on November 21, sanctioned a scheme of arrangement between the Central Argentine Railway

Limited and holders of its 4 and 5 per cent. debenture stocks and of its 5½ per cent. notes, for a moratorium of 2½ years, with a possible extension after submission to separate meetings of the holders concerned.

B.S.S. for Machine Cut Gears.—

A revision of B.S. 436, "Machine Cut Gears (A), Helical and Straight Spur," has recently been issued. Copies may be obtained from the British Standards Institution, 28, Victoria Street, S.W.1., price 7s. 10d. post free.

British and Irish Railway Stocks and Shares

Stocks	Highest 1939	Lowest 1939	Prices	
			Nov. 26, 1940	Rise Fall
G.W.R.				
Cons. Ord.	38	21½	33½	-2
5% Con. Pref.	92	71	83½	-½
5% Red. Pref. (1950) ..	98	83	93½	-
4% Deb.	103	91	105	-½
4½% Deb.	105½	93½	103½	-
4½% Deb.	110	99	108½	-
5% Deb.	121	109½	112½	-
2½% Deb.	63½	54	62	-
5% Rt. Charge	117	104	111½	-
5% Cons. Guar.	111	96½	110½	-½
L.M.S.R.				
Ord.	17	9½	14½	-½
4% Pref. (1923)	46½	20	37½	-½
4% Pref.	63½	37½	50½	-½
5% Red. Pref. (1955) ..	83	58½	73½	-
4% Deb.	109	85	98½	-
5% Red. Deb. (1952) ...	109	101½	106	-
4% Guar.	87½	73	83½	-½
L.N.E.R.				
5% Pref. Ord.	54	34	3	-½
Def. Ord.	34	14	1½	-½
4% First Pref.	38½	19	33½	-½
4% Second Pref.	15	7½	11½	-½
5% Red. Pref. (1955) ..	55	38	50	-
4% First Guar.	78½	60	73½	-½
4% Second Guar.	68½	47	58	-
3% Deb.	71½	57	69½	-½
4% Deb.	93	76	83	-
5% Red. Deb. (1947) ...	106½	98	102	-
4½% Sinking Fund Red. Deb.	104½	96	100½	-
SOUTHERN				
Pref. Ord.	78	46½	46	-
Def. Ord.	19½	7	10½	-½
5% Pref.	100	76	83	-
5% Red. Pref. (1964) ...	102½	84	87½	-
5% Guar. Pref.	116½	103	111	-
5% Red. Guar. Pref. (1957) ..	112½	102½	102½	-
4% Deb.	103	91½	101	-½
5% Deb.	118½	109½	110½	-
4% Red. Deb. (1962-67) ..	106	98	101½	-
4% Red. Deb. (1970-80) ..	102	96	106½	-
FORTH BRIDGE				
4% Deb.	98½	81	87½	-
4% Guar.	95	80	85½	-
L.P.T.B.				
4½% "A"	115	103	107½	+½
5% "A"	123	106½	116	-
4½% "T.F.A."	105	100½	103	-
5% "B"	117½	102	103½	+½
"C"	84	63½	31	+2
MERSEY				
Ord.	24½	17½	20½	-
4% Perp. Deb.	93½	88½	89	-
3% Perp. Deb.	77	65½	59½	-
3% Perp. Pref.	55	49½	54½	-
IRELAND				
BELFAST & C.D.				
Ord.	6	3	4	-
G. NORTHERN				
Ord.	6	2½	3	-
G. SOUTHERN				
Ord.	13½	8	5	-
Pref.	26	10	12	-½
Guar.	40½	22	16	-½
Deb.	57	45½	42	-½

Irish Traffic Returns

IRELAND		Totals for 46th Week			Totals to Date				
		1940	1939	Inc. or Dec.	1940	1939	Inc. or Dec.		
Belfast & C.D. (80 miles)	pass.	£ 2,466	£ 2,037	+	£ 429	£ 150,996	£ 121,010	+	£ 29,986
	goods	1,281	491	+	790	29,576	21,832	+	7,744
	total	3,747	2,528	+	1,219	180,572	142,842	+	37,730
Great Northern (543 miles)	pass.	9,600	9,050	+	550	567,050	523,650	+	43,400
	goods	17,200	13,550	+	3,650	614,650	510,300	+	104,350
	total	26,800	22,600	+	4,200	1,181,700	1,033,950	+	147,750
Great Southern (2,076 miles)	pass.	28,021	26,744	+	1,277	1,635,152	1,710,709	-	75,557
	goods	62,329	65,789	-	3,460	2,202,160	2,081,617	+	120,543
	total	90,350	92,533	-	2,183	3,837,312	3,792,326	+	44,986
L.M.S.R. (N.C.C.) (247 miles)	pass.	5,250	4,480	+	770	263,560	217,960	+	45,600
	goods	7,090	3,470	+	3,620	194,750	140,920	+	53,830
	total	12,340	7,950	+	4,390	458,310	358,880	+	99,430

OFFICIAL NOTICES

London and North Eastern Railway

NOTICE is hereby given that, for the purpose of preparing the warrants for interest on the Company's 3 per cent. and 4 per cent. Debenture Stocks and 4½ per cent. Sinking Fund Debenture Stock for the half-year ending 31st December, 1940, the balance will be struck as at the close of business on 11th December, and interest will be payable only to those Stockholders whose names are registered on that date.

Transfers of the above-mentioned Stocks should, therefore, be lodged with the Registrar of the Company at Hamilton Buildings, Liverpool Street Station, London, E.C.2, before 5.0 p.m. on 11th December.

By Order:

P. J. DOWSETT,
Secretary.

Marylebone Station,
London, N.W.1.
29th November, 1940.

OFFICIAL ADVERTISEMENTS

OFFICIAL ADVERTISEMENTS intended for insertion on this page should be sent in as early in the week as possible. The latest time for receiving official advertisements for this page for the current week's issue is noon on Wednesday. All advertisements should be addressed to:—*The Railway Gazette*, 33, Tothill Street, Westminster, London, S.W. 1.

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The Taunton Derailment

At the resumed inquest held at Taunton on November 20 on the 27 victims of the Norton Fitzwarren derailment, the jury found that the driver of the express, Percy William Stacey, had been "guilty of an error of judgment," adding that they could not decide on the actual degree of error, but that they did not consider it criminal, especially in view of the abnormal weather and other conditions. They also expressed the view that some arrangement should be made whereby a communication could be passed to the engineman of any train entering on the relief line at Taunton contrary to the usual procedure.

The circumstances of the accident, it may be recalled, were that the 9.50 p.m. G.W.R. Paddington-Penzance express, which was travelling on the down relief line near Norton Fitzwarren, was derailed at the catchpoints in the early morning of Monday, November 4, while the 12.50 a.m. newspaper train from Paddington was passing on the down main line.

In evidence at the resumed inquest, the signalman at Norton Fitzwarren said he gave "line clear" for the passenger and the newspaper trains at 3.38 a.m. and 3.39 a.m., respectively. He obtained "line clear" from the signal-box ahead for the newspaper train, which was on the down main line, and was to precede the passenger train. He lowered his main line signals accordingly, but all signals on the relief line were left at danger. He expected the passenger train to stop on the Taunton side of his box, but was surprised to see it pass, and a few seconds later heard a crash. He estimated the speed of the train at about 40 m.p.h.

Driver Stacey elected to give evidence, and stated that he mistook the main line signals for those applying to him, under the impression that he was on the down main. At Norton Fitzwarren, when looking out for the signals, he saw another train passing on his right, and immediately shut off steam and applied his brakes, but came off the road at the catchpoints. It was not till he saw the newspaper train passing him that he realised he was on the down relief. There was,

he said, wind and mist at the time. He did not receive any warning from the automatic train control. Evidence was given by railway officials that an inspection of the signalling after the accident did not reveal any defects.

Railway and Other Reports

Central Uruguay Railway Co. of Monte Video Limited.—Gross receipts for the year ended June 30, 1940, amounted to £1,142,873, an increase of £162,207. In the working expenses of £918,762 there was an increase of £131,811, leaving net receipts £30,396 higher, at £224,111. Sundry credits were higher, partly because of a profit of £14,093 on exchange compared with a loss of £15,621 in the previous year, and also £31,716 for arrears of Government guarantee, and the total net income of £321,475 covers the full year's interest on the 4½ per cent. first debenture stock, appropriation of £226,741 for renewals, leaving £16,806 forward.

Heenan & Froude Limited.—Trading profit for the year to August 31, 1940, amounted to £57,891, against £62,071 for the previous year, and the net profit was £50,046, compared with £53,965. Provision for taxation is £30,000, against £15,300, and the final dividend recommended is 5 per cent., making 10 per cent. for the year, together with a cash bonus of 5 per cent., all less tax. After appropriating £10,000 to general reserve, £10,765 is carried forward, against £20,609.

Questions in Parliament

Releases of Railwaymen

Mr. W. Dobbie (Rotherham—Lab.), on November 12, asked the Secretary of State for War whether he was aware that elderly railwaymen were being retained with the armed forces while younger men were being released for duty with the railway companies.

Mr. Anthony Eden (Secretary of State for War) replied that releases of railwaymen from the Army were carried out at the request of railway companies. Individuals were asked for by name. The men whose releases were sought were, naturally those of grades which were most urgently needed.

Contracts and Tenders

The Drewry Car Co. Ltd. has received an order from the Tasmanian Government Railways for five 3 ft. 6 in. gauge power bogies complete with Gardner 6L3 diesel engines of 150 b.h.p., Vulcan-Sinclair fluid couplings and Wilson gearboxes.

The Bengal Nagpur Railway has placed an order for an hydraulic flanging press with Fielding & Platt Limited.

The South African Railways & Harbours Administration is calling for tenders for the supply and delivery of 3-ton, four-wheel, welded-frame road trailers. Quotations are required for quantities ranging from 1 to 80. Tenders should reach the secretary to the Tender Board, Room No. 31, South African Railways & Harbours, or P.O. Box 7784, Johannesburg, by 1 p.m. on December 2.

Forthcoming Events

- Dec. 4 (Wed.).—Institute of Transport, at Connaught Rooms, Great Queen Street, London, W.C.2, 1 for 1.15 p.m. Luncheon followed by annual general meeting. Address by Lieut.-Colonel J. T. C. Moore-Brabazon, M.C., M.P.
- Dec. 7 (Sat.).—Permanent Way Institution, (Manchester-Liverpool), at Queen's Hall, George Street, Blackburn, 3 p.m. "Some engineering activities on the Blackburn district of the L.M.S.R.," by Mr. W. Hepworth.
- Dec. 10 (Tues.).—Institute of Transport (Birmingham), at Queen's Hotel, 6 p.m. "Government control of the railways to-day and in the last war," by Mr. P. H. Smith.
- Dec. 11 (Wed.).—Royal Society of Arts, John Adam Street, London, W.C.2, 1.45 p.m. "Road Transport," by Mr. J. S. Nicholl.

Forthcoming Meetings

- Dec. 2 (Mon.).—**Madras & Southern Mahratta Railway Co. Ltd.** (Ordinary general), Guildcroft, Epsom Road, Guildford, at noon.
- Dec. 3 (Tues.).—**Central Uruguay Railway Co. of Monte Video Ltd.** (Ordinary general), River Plate House, E.C., at 4.30 p.m.
- Dec. 12 (Thurs.).—**Argentine North Eastern Railway Co. Ltd.** (Ordinary general), River Plate House, E.C., at 2.15 p.m.

Railway Stock Market

Owing to inactive conditions on the Stock Exchange, the undertone in most securities has been easier this week, although high-class investments were assisted by reinvestment of proceeds of requisitioned Canadian stocks. British Funds were firm; in some quarters of the market there is talk of a new Government loan in the near future. The prevailing view is that over a period, the rise in security values is likely to make further good progress, although, from time to time the general trend will no doubt be governed by the war and international news. Home railway stocks were moderately reactionary, sentiment having continued to be affected by the decision of the three railway unions to place before the companies a uniform claim for further increases in wages. Incidentally, demands for higher wages are also impending in other important industries. Profit-taking in home railway securities has been of small proportions, but, as a result, the market is now better supplied with stock than in recent weeks, and it has been possible to buy in fairly large amounts at around prices indicated by current quotations. Full details of the war damage insurance Bill continue to

be awaited with considerable interest. They may, of course, have an important bearing on modifications to the financial agreement with the Government, but there is general confidence that the guaranteed minimum net revenues of £40,000,000 per annum will remain. On this basis, most stocks of the ordinary or equity class will be assured of small dividends, which at current prices would show attractive yields.

Contrary to the general trend, London Transport "C" stock showed a firmer tendency this week, and on balance improved from 29½ to 31. Metropolitan Assented stock was better in sympathy, and was 41, compared with 38 a week ago, attention having been drawn to the apparently attractive yield and guaranteed dividend. Great Western ordinary further declined from 35½ to 33½, but the preference stock was maintained at 83½. On the other hand, a fractional decline was shown in the guaranteed stock at 111, while the 4 per cent. debentures were 105, compared with 106½. L.M.S.R. ordinary was easier at 14½, and at 50½ the senior preference showed a loss of a point, and the 1923 preference made a similar decline to 37½. L.M.S.R. guaran-

teed stock also went back a point and is 83½ at the time of writing; the 4 per cent. debentures moved down fractionally to 99.

L.N.E.R. first guaranteed was 73½, compared with 74 a week ago, and the second guaranteed 60, compared with 62. Moreover, a reaction from 35 to 33½ was shown in L.N.E.R. first preference; the second preference was 11½. Whereas L.N.E.R. 3 per cent. debentures were half-a-point down at 70, the 4 per cent. debentures were maintained at 93. Among Southern Railway issues, the deferred moved back from 11½ to 10½, but the preferred at 46 was unchanged on balance. Moreover, other Southern stocks showed a steady tendency, and the guaranteed and preference at 110½ and 83 respectively were unchanged on balance. The 4 per cent. debentures, however, were 101, compared with 101½ a week ago. Pending the annual meetings, only small movements were shown in Argentine railway issues, and following their recent improvement B.A. Gt. Southern and B.A. Western debentures had an easier appearance. B.A. & Pacific and Entre Rios stocks have been little changed since publication of the financial results. Elsewhere, Leopoldina debentures were better at 13½ on the improving traffic position.

Traffic Table of Overseas and Foreign Railways Publishing Weekly Returns

Railways	Miles open 1939-40	Week Ending	Traffic for Week		No. of Weeks	Aggregate Traffic to Date			Shares or Stock	Prices				
			Total this year	Inc. or Dec. compared with 1939		Totals		Increase or Decrease		Highest 1939	Lowest 1939	Nov. 26, 1940	Yield % (See Note)	
						This Year	Last Year							
South & Central America	Antofagasta (Chili) & Bolivia	834	17.11.40	£ 21,630	+ 4,920	46	£ 779,320	£ 626,280	+ £ 153,040	Ord. Stk.	10½	4½	5½	NII
	Argentine North Eastern	753	16.11.40	ps. 148,900	+ ps. 6,900	20	ps. 3,392,600	ps. 3,430,300	- ps. 37,700	"	4½	2½	2½	NII
	Bolivar	174	Oct. 1940	3,180	- 1,320	43	39,150	42,850	- 3,700	6 p.c. Deb.	7½	5½	6½	NII
	Brazil	2,801	16.11.40	ps. 1,173,000	- ps. 30,000	20	ps. 22,382,000	ps. 24,188,000	- ps. 1,806,000	Bonds	5½	4½	6½	NII
	Buenos Ayres & Pacific	190	21.9.40	\$104,700	- \$14,800	12	\$1,168,200	\$1,405,500	- \$237,300	Ord. Stk.	5½	2	2	NII
	Buenos Aires Central	5,082	16.11.40	ps. 2,018,000	- ps. 164,000	20	ps. 37,591,000	ps. 39,132,000	- ps. 1,541,000	Ord. Stk.	13½	4½	5½	NII
	Buenos Ayres Gt. Southern	1,930	16.11.40	ps. 763,000	- ps. 89,000	20	ps. 12,823,000	ps. 14,109,000	- ps. 1,286,000	"	10½	4	3	NII
	Buenos Ayres Western	3,700	16.11.40	ps. 1,316,750	- ps. 458,000	20	ps. 27,697,550	ps. 38,117,050	- ps. 10,419,500	"	11½	4	3	NII
	Central Argentine	Do.	16.11.40	23,306	+ 1,048	20	388,976	346,975	+ 42,001	Ord. Stk.	2½	1½	1½	NII
	Do.	972	16.11.40	17,282	+ 7,020	48	193,339	245,516	- 52,177	Ord. Stk.	2½	18	17½	NII
	Cent. Uruguay of M. Video	188	May 1940	11,700	- 1,300	43	122,400	136,700	- 14,300	1 Mt. Db.	104½	102	98	6½
	Costa Rica	70	Oct. 1940	218,800	- ps. 13,700	20	ps. 4,650,400	ps. 5,201,500	- ps. 551,100	Ord. Stk.	6	3	1½	NII
	Dorada	810	16.11.40	14,700	+ 2,000	46	470,700	394,800	+ 75,900	Ord. Sh.	3/-	1/2d	1/2d	NII
	Entre Rios	1,016	16.11.40	\$325,789	- \$37,196	39	\$4,405,419	\$4,486,381	- \$80,962	"	7½d.	7½d.	1/2d.	NII
	Great Western of Brazil	794	Sept. 1940	6,795	+ 1,180	43	67,095	60,725	+ 6,370	Ord. Stk.	2½	1½	1½	NII
	International of Cl. Amer.	22½	Oct. 1940	27,288	+ 3,141	42	961,659	868,452	+ 93,207	Ord. Stk.	2½	1½	1½	NII
	Interoceanic of Mexico	1,918	19.10.40	425,800	- ps. 21,600	13	ps. 3,539,400	ps. 2,682,800	- ps. 1,434,000	Ord. Stk.	1½	1½	1½	NII
	La Guaira & Caracas	483	30.9.40	11,468	+ 2,820	13	154,897	105,095	+ 49,802	Ord. Sh.	2½	1½	1½	NII
	Leopoldina	386	15.11.40	8,226	+ 1,330	45	154,897	105,095	+ 49,802	Ord. Sh.	2½	1½	1½	NII
	Mexican	319	Sept. 1940	\$2,911,000	- \$163,000	20	\$68,351,000	\$64,277,000	+ \$4,074,000	Pr. Li. Stk.	45½	36	38	15½
Midland of Uruguay	274	16.11.40	56,878	+ 4,393	17	265,325	254,699	+ 10,626	Ord. Stk.	1½	1½	1½	NII	
Nitrate	1,059	Oct. 1940	28,940	+ 8,731	13	118,004	130,195	- 12,191	Ord. Sh.	38	20	29	8½	
Paraguay Central	100	28.9.40	33,500	+ 1,894	45	1,630,164	1,472,087	+ 158,077	Ord. Sh.	1½	6/6	6/6	NII	
Peruvian Corporation	153½	10.11.40	2,175	+ 1,435	13	6,725	4,425	+ 2,300	Ord. Stk.	2	1½	1½	NII	
Salvador	160	Sept. 1940	13,126	+ 696	20	303,152	349,488	- 46,336	Ord. Stk.	2	1½	1½	NII	
San Paulo	73	Sept. 1940	970	+ 63	13	2,870	2,683	+ 187	"	—	—	—	—	
Taltal	1,353	16.11.40	990,966	+ 85,886	46	42,297,772	34,686,104	+ 7,611,668	Ord. Stk.	7½	60	74	5½	
United of Havana	17,153	14.11.40	683,800	+ 1,800	46	29,168,400	25,825,000	+ 3,343,400	Ord. Stk.	100½	76	102	3½	
Uruguay Northern	73	Sept. 1940	45,187	+ 6,529	4	135,060	120,437	+ 14,623	Ord. Stk.	7½	60	77½	3½	
Uruguay Southern	202	30.4.40	3,465	- 52	26	74,625	59,850	+ 14,775	Ord. Stk.	277	229½	247½	6½	
Canada	Assam Bengal	2,091	30.9.40	235,425	+ 35,048	4	235,425	200,377	+ 35,048	Ord. Stk.	91	84½	212½	3½
	Batal Light	161	Sept. 1940	14,625	+ 508	26	78,405	66,243	+ 12,162	Ord. Stk.	91	84½	212½	3½
	Bengal & North Western	3,269	30.9.40	245,025	+ 23,858	26	4,212,552	3,841,155	+ 371,397	"	94½	83½	92½	4½
	Bengal Doonars & Extension	2,986	10.11.40	244,575	+ 3,075	30	5,822,250	5,178,600	+ 643,650	"	100	90	105	5½
	Bengal-Nagpur	2,967	30.9.40	147,900	+ 17,008	26	2,984,618	2,903,006	+ 81,612	"	104½	92	99½	7½
	Bombay, Baroda & Cl. India	571	Oct. 1940	43,500	+ 5,745	4	43,500	37,755	+ 5,745	"	280	263	250	6½
	Madras & Southern Mahratta	2,542	20.9.40	136,055	+ 20,352	24	2,151,266	1,982,691	+ 168,575	"	102½	88	84½	5½
	Rohilkund & Kumaon	204	Sept. 1940	73,186	- 271	23	76,582	83,648	- 7,066	Ord. Stk.	1½	1½	1½	NII
	South Indian	623	10.9.40	5,329	+ 271	23	76,582	83,648	- 7,066	Ord. Stk.	1½	1½	1½	NII
	Various	1,625	Sept. 1940	11,397	+ 139	4	11,397	11,258	+ 139	B. Deb.	55	39	47½	7½
Various	Beira	277	July 1940	27,727	+ 3,258	22	783,893	601,488	+ 182,405	Ord. Stk.	91½	87½	82½	4½
	Egyptian Delta	1,900	31.8.40	482,182	+ 70,875	30	20,360,935	19,375,790	+ 985,145	Ord. Stk.	—	—	—	—
	Kenya & Uganda	2,442	Sept. 1940	717,513	+ 183,538	4	868,428	684,890	+ 183,538	Ord. Stk.	—	—	—	—
	Manila	2,442	Sept. 1940	717,513	+ 183,538	4	868,428	684,890	+ 183,538	Ord. Stk.	—	—	—	—
	Midland of W. Australia	1,900	31.8.40	482,182	+ 70,875	30	20,360,935	19,375,790	+ 985,145	Ord. Stk.	—	—	—	—

Note. Yields are based on the approximate current prices and are within a fraction of ½. Argentine traffic are now given in pesos
 * Quotation is of June 17, 1940; dealings subsequently prohibited † Receipts are calculated ‡ Is. 6d. to the rupee